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CARMARTHENSHIRE COUNTY COUNCIL.



# Annual Report



OF THE

County Medical Officer  
of Health

FOR THE YEAR 1938.



WILLIAM M. LLOYD,  
M.B., Ch.B., D.P.H.

THE CELTIC PRESS, LTD., CARMARTHEN.



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Notifications of Infectious Diseases: Table IV.

Public Health Department,

Shire Hall,

Carmarthen,

25th October, 1939.

To the Chairman and Members of the Carmarthenshire  
County Council.

Mr. Chairman, Ladies and Gentlemen,

I have the honour to submit my fourth Annual Report on the health services and the state of the Public Health of Carmarthenshire for the year 1938.

The following is a brief summary of the principal vital statistics for 1938, as compared with those for 1937:—

	1938	...	1937
Area of County in acres	588472	...	588472
Population at 1931 Census	179100	...	179100
Estimated population in mid-year	172700	...	174090
Nett Births	2366	...	2486
Birth rate for the County per 1000 population	13.7	...	14.2
Birth rate for England and Wales per 1000 population	15.1	...	14.9
Number of deaths in County	2061	...	2238
Death rate for County per 1000 population	11.9	...	12.8
Death rate for England and Wales per 1000 population	11.6	...	12.4
Infant Mortality rate per 1000 births in County	51.9	...	55.5
Infant Mortality rate per 1000 births for England and Wales	53.0	...	58.0
Number of deaths from Heart Disease	522	...	548
Death rate from Heart Disease for the County per 1000 population	3.2	...	3.1
Number of Deaths from Cancer	239	...	254
Death rate from Cancer for the County per 1000 of the population	1.3	...	1.45
Number of deaths from Tuberculosis (all forms)	122	...	148
Death rate from Tuberculosis for the County per 1000 of the population	.706	...	.85
Death rate of Mothers during childbirth (per 1000 total births)	4.004	...	7.93

It will be noticed that there was a sharp reduction in the puerperal mortality rate for 1938 as compared with 1937. During 1938 the following measures were taken with a view to reducing the puerperal mortality rate which has been consistently high for many years:—

(a) Provision of hospital accommodation for maternity cases. Early in 1938, sixteen beds in the Maternity block of the Carmarthen Infirmary with additional beds if required in the General block for possibly infected cases were allotted to the County Council for maternity patients. These beds are under the charge of an Obstetrician and a Consultant Obstetrician appointed by the Council, and were occupied by 154 patients during 1938. Cases of Puerperal Sepsis are treated at the County Isolation Hospital;

(b) Fees charged to patients for maternity hospital accommodation were reduced to reasonable limits;

(c) Greater use was made of the services of the Consultant Obstetrician both for in-patients and out-patients.

(d) The nutrition of expectant mothers was more amply catered for, and the income scale determining eligibility for free milk was revised in a more generous direction;

(e) A scheme for ante natal and post natal care was prepared, but its adoption was unfortunately deferred. The scheme envisaged the ante natal and post natal care of necessitous uninsured women by general practitioners together with three Consultant Clinics to which practitioners could refer cases of difficulty. No service of maternal welfare is complete without such a scheme.

The County Midwifery Service continues to work very satisfactorily. Twelve midwives received post certificate courses during the year under the scheme.

Under the "Treatment of pre-school Children Scheme," 176 Children received attention at the Orthopaedic Clinics, 4 were operated on for enlarged tonsils and adenoids, and 9 children were referred to the Ophthalmic Surgeons.

The scheme for the appointment of whole-time Medical Officers of Health was prepared and adopted by the Council during the year. The outbreak of War has necessitated the operation of the Scheme being postponed for the time being.

In conclusion, I wish to thank the Chairman, Vice-Chairman and Members of the Public Health and Maternity and Child Welfare Committees for their interest and support. I also desire to express my appreciation of the work of my clerical staff.

I am,

Your obedient Servant,

WILLIAM M. LLOYD,

*County Medical Officer.*



## Public Health Staff.

<i>County Medical Officer of Health and Chief School Medical Officer</i> ... ..	Dr. William M. Lloyd, M.B., Ch.B., D.P.H.
<i>Assistant School Medical Officers</i> ... ..	Dr. Gladys M. Herbert, M.R.C.S., L.R.C.P. Dr. E. T. Davies Humphreys, M.R.C.S., L.R.C.P. (Temporary from 28th Jan., to 31st Dec., 1938)
<i>Ophthalmic Surgeons (part-time)</i> ... ..	Mr. J. J. Healy, M.B., Ch.B.. Mr. E. K. Roy Thomas, F.R.C.S.E.
<i>Ear, Nose &amp; Throat Surgeons (part-time)</i> ... ..	Mr. T. I. Williams, F.R.C.S.E. Mr. C. P. Robinson, M.Ch., F.R.C.S.E. Mr. J. Crowther, F.R.C.S.E. Mr. H. H. Mathias, F.R.C.S.
<i>Orthopaedic Surgeon (part-time)</i> ... ..	Mr. A. O. Parker, M.D., C.M.
<i>Obstetric Consultant</i> ... ..	Mr. J. Lloyd Davies, M.D., M.R.C.P., F.R.C.S.E.
<i>Consultant in Plastic Surgery (Cleft palate, hare-lip, etc.)</i>	Mr. T. Pomfret Kilner, F.R.C.S.
<i>Medical Officer to County Isolation Hospital (part-time)</i> ...	Dr. D. C. Evans, M.R.C.S., L.R.C.P.
<i>Matron to County Isolation Hospital</i> ... ..	Miss Vera E. Meredith S.R.N., R.F.N., S.C.M.
<i>School Dental Officer</i> ...	Mr G. U. Griffiths, L.D.S., R.C.S.
<i>Assistant School Dental Officer</i> ... ..	Mr O. Capper Jenkins, L.D.S. commenced duties 20th June, 1938.
<i>Orthopaedic Sisters—Senior...</i>	Miss M. G. Thomas, C.S.M.M.G.
<i>Assistant...</i>	Miss M. R. Hughes, C.S.M.M.G.
<i>Supervisor of Nurses and Midwives</i> ... ..	Miss L. G. Newcomb S.R.N., S.C.M.
<i>County Analyst</i> ... ..	Mr. Clarence A. Seyler, B.Sc., F.I.C.
<i>Bacteriologist</i> ... ..	Dr. A. F. Sladden, M.D.

## HEALTH VISITORS.

## Whole-Time.

<i>District.</i>			<i>Nurse.</i>
Amman Valley (Cwmamman and Brynamman)	...	...	Nurse R. A. Roberts.
Ammanford	...	...	" M Matthews (Died 9-1-39)
Trimsaran	...	...	" E. Davies.
Burry Port	...	...	" F. M. Williams.
Cwmgwili	...	...	" M. Jones.
St. Clears	...	...	" C. F. Isaacs.
Carmarthen Rural	...	...	" E. G. Davies.

## Part-Time.

<i>District.</i>			<i>Nurse.</i>
Drefach	...	...	Nurse E. Sprague.
Llanddarog	...	...	" M. H. Davies.
Llangendeirne	...	...	" M. E. Williams.
Abergwili	...	...	" M. Langley.
Nantgaredig	...	...	" H. Morgan.
Llangathen	...	...	" E. A. Olley.
Llanfihangel-Aberbythich	...	...	" M. Evans.
Llandilo	...	...	" E. Jones.
Llansawel	...	...	" D. Perkins.
Talley	...	...	" M. J. Phillips
Llanfynydd	...	...	" E. A. Jones.
Llandovery	...	...	" M. Davies.
Gilycwm	...	...	" E. Jones.
Caio	...	...	" E. A. Rees.
Llangadock	...	...	" C. Jones.
Llansadwrn and Llanwrda	...	...	" J. James.
Newcastle Emlyn	...	...	" M. A. Gibbs-Jones.
Henllan	...	...	" M. F. Rees.
Ferryside	...	...	" M. M. T. Richards.
Llanstephan	...	...	" E. A. Baseley.
Whitland	...	...	" M. Owen.
Llandilo North Ward	...	...	" E. J. Hughes.
Llangunnor	...	...	" K. E. Critchley.
Duffryn Taf	...	...	" N. Thomas.
Felinioel	...	...	" R. A. Thompson Banner
Pontyates	...	...	" C. B. Pritchard.
Gorslas and Cefneithin	...	...	" A. C. Anthony-Jones.
Ammanford—Saron	...	...	" C. M. Thomas.
" Tycroes	...	...	" M. E. M. Finch.
Tumble	...	...	" C. Hopkins.
Dafen	...	...	" E. Darkin.
Pencader	...	...	" E. Jenkins.
Llanybyther	...	...	" S. Rees.
Kidwelly	...	...	" M. Morgan.
Pontyberem	...	...	" O. Evans.
Penygroes	...	...	" G. M. Williams.
Llandeibie	...	...	" E. Davies.

# SANITARY DISTRICTS AND OFFICERS.

Name of District.	Medical Officer of Health.	Whole time or Part time.	Sanitary Inspector.	Whole time or Part time.	Whether holding R. S. Institute Certificate.
<i>URBAN.</i>					
Llanelli ...	Dr. L. W. Pole ...	Whole time.	Richard Evans John E. Marks Ivor Reynold Rees ...	Whole time. Do. Do.	Yes & Meat Certificate. Yes. Yes.
Carmarthen ...	Dr. A. R. Culley ...	Do.	James Evans E. W. Francis ...	Do. Do.	Yes. Yes.
Llandilo ...	Dr. W. A. T. Lloyd ...	Part time	Thomas George Price...	Part time.	Yes.
Llandovery ...	Dr. J. T. Price ...	Do.	Evan Williams ...	Do.	No; appointed in 1902.
Kidwelly ...	Dr. D. Beynon Davies ...	Do.	J. E. Vaughan Evans	Do.	Yes.
Newcastle-Emlyn ...	Dr. J. Penry ...	Do.	Joshua Evans ...	Do.	Yes.
Ammanford ...	Dr. A. Harper ...	Do.	L. Sunderland ...	Whole time.	Yes.
Burry Port ...	Dr. W. D. Williams ...	Do.	J. E. Vaughan Evans	Part time.	Yes.
Cwmamman ...	Dr. John Davies ...	Do.	J. Owen Parry ...	Do.	Yes.
<i>RURAL.</i>					
Llanelli ...	Dr. D. C. Evans ...	Do.	T. M. Griffiths David Rees D. E. Jones D. I. Treharne ...	Whole time. Do. Do. Do.	Yes. No; long service. Yes & Meat Certificate. Yes.
Carmarthen ...	Dr. A. R. Culley ...	Whole time.	Edwin Mansel Job W. Williams W. E. Jones ...	Do. Do. Do.	Yes. Yes. Yes.
Llandilo-fawr ...	Dr. W. A. T. Lloyd ... Dr. W. T. Lawson ..	Part time. Do.	David Owen Evan Williams R. P. Walters ...	Do. Part time. Whole time.	Yes. No; appointed in 1902. Yes.
Newcastle-Emlyn	Dr. E. Evans ...	Do.	Joshua Evans ...	Part time.	Yes.

## GENERAL PROVISION OF HEALTH SERVICES IN THE AREA.

### Hospitals—Public and Voluntary.

1.—*Infectious Diseases*.—The number of beds available in the County for cases of infectious diseases other than smallpox is as follows:—

County Isolation Hospital	...	...	...	44
Llanelly Borough Isolation Hospital	...	...	...	10
				—
				54
				—

2.—*Smallpox*.—No provision for a smallpox hospital has been made by the Council, but negotiations are proceeding for the use of the Swansea Borough Smallpox Hospital when required.

3.—*For Tuberculosis*.—Institutional treatment of tuberculosis is carried out in the sanatoria and hospitals of the Welsh National Memorial Association.

4.—*For Venereal Diseases*.—The Council have arrangements for in-patient treatment of patients with Venereal diseases at the Swansea General and Eye Hospital. Twenty-one patients received treatment during 1938.

5.—*For Maternity Cases*.—Sixteen beds for maternity cases were allocated at the County Infirmary, Carmarthen, for the use of County Council cases during 1938. Cases of puerperal sepsis are treated at the County Isolation Hospital. There are also five beds available in the Public Assistance Institutions of the County for Maternity cases.

6.—*For Cases of Tonsils and Adenoids, Polypi, Deviated Nasal Septum, Mastoid Disease and other Nasal, Antral and Sinus Conditions*.—The Council have arrangements with the Carmarthen Infirmary, Llandovery Cottage Hospital, Goring Nursing Home, Llanelly, and Amman Valley Hospital, for the treatment of these conditions in preschool and school children.

7.—*For Cleft Palate*.—Arrangements have been made for the treatment of cleft palate in pre-school and school children at the Lord Mayor Treloar Hospital, Aalton, Hampshire, by Mr. T. Pomfret Kilner, F.R.C.S.

8.—*For Orthopaedic Cases.*—Institutional treatment of cripples up to the age of 16 years is carried out for the Council at the Prince of Wales' Hospital, Cardiff, and at the country branch of the hospital at Cross Ways, Cowbridge.

9.—*For Mental Cases.*—Mental cases from the County are admitted to the Joint Counties Mental Hospital, Carmarthen.

10.—*Beds available for Sick, Maternity and Mental cases in Public Assistance Institutions:—*

Institution.	Beds.
Carmarthen	47
Llanelly	66
Llandilo	40
	<hr/> 153 <hr/>

The Llanelly Institution alone has a separate Infirmary Section.

11.—*Voluntary Hospitals.*—The accommodation available in the four voluntary hospitals within the County is as follows:—

Name of Hospital	Number of Beds.				Total No. of Beds.
	Medical	Surgical	Maternity	Children	
Carmarthen ...	20	47	24	9	100
Llanelly ...	3	69	...	9	81
Amman Valley		20	...	2	22
Llandovery ...	6		...	2	8
Total ..	165		24	22	211

Maternity cases are admitted to the Amman Valley Cottage Hospital if Caesarean Section is required.

In addition to the above Voluntary Hospital accommodation within the County, accommodation is also available for Carmarthenshire patients at the Swansea General Hospital.

### Treatment Centres and Clinics.

1.—*Infant Welfare Centre*.—There are twenty-one in number, viz., Ammanford, Brynamman, Burry Port Cwmmamman, Llandovery, Llwynhendy, Pwll, Furnace, Gorslas, Tumble, Pontyberem, Ystradowen, Penygroes, Llandilo, Ffairfach, Trimsaran, Kidwelly, Whitland, Llanstephan, Llangennech and Newcastle Emlyn.

There are in addition two contributory centres supported by joint authorities, viz., one at Pontardulais and the other at Henllan.

2.—*Orthopaedic Clinics*.—There are fifteen orthopaedic clinics, viz., at Llanelly, Ammanford, Garnant, Brynamman, Llandebie, Tumble, Pontyberem, Llandilo, Llandovery, Pencader, St. Clears, Carmarthen, Trimsaran, Burry Port, Halfway.

These are visited weekly or fortnightly by the two Orthopaedic Sisters employed by the Council. Mr. Parker, the Council's part-time Orthopaedic Surgeon, visits the County six times a year, and attends at the three Central Clinics, viz., at Carmarthen, Llanelly, and Ammanford.

3.—*Eye Clinics*.—There are four Eye Clinics, viz., at Carmarthen, Llanelly, Ammanford and Lampeter. Pre-school and school children and cases under the Blind Persons Act are examined at these clinics as occasion arises by the two part-time Ophthalmic Surgeons.

4.—*Ear, Nose and Throat Clinics*.—Pre-school and school children suffering from any ear, nose and throat condition requiring specialist advice are examined under arrangements made by the Council at Llandovery Cottage Hospital, Carmarthen Infirmary, Goring Road Nursing Home, Llanelly, and the Amman Valley Hospital.

5.—*Dental Clinics*.—The School Dental Officers carry out their work at the schools.

6.—*Tuberculosis*.—Consultations are carried out at the Dispensaries of the Welsh National Memorial Association.

7.—*Venereal Diseases Centre*.—This is held at the Swansea General and Eye Hospital.



The above Clinics are held in schools, vestries or in hospitals as the case may be. During 1938 a new clinic was opened at Ammanford. This is the first clinic in the County to be built specifically as a centre for the health activities of the Education and Maternity and Child Welfare Committees. It is intended to carry out the following duties at this Clinic:—Infant Welfare, Ante-natal and post-natal consultations, orthopaedics, dental work, eye examinations, treatment of minor ailments, supervision of "special" cases. It is to be hoped that this Clinic is the forerunner of others. There is also need of such clinics at Llanelly (either jointly with Llanelly Borough or otherwise), Tumble and Llandilo. A new Clinic in Carmarthen Borough was in the course of erection during the year.

### Laboratory Facilities.

The Council have arrangements with

(a) Beck Laboratory, Swansea General and Eye Hospital for the examination of Bacteriological specimens. The Laboratory is under the direction of Dr. A. F. Sladden. The following bacteriological work was done at the Beck Laboratory for the County Council during the year 1938:—

Swabs for Diphtheria	...	...	...	1546
Tests for Diphtheria Virulence	...	...	...	35
Blood for evidence of Enteric fevers and Dysentery	...	...	...	9
Milk samples for Tubercle Bacilli	...	...	...	13
Sputum for Tubercle Bacilli	...	...	...	1
Spinal and other fluids	...	...	...	1
Swabs for Haemolytic Streptococci	...	...	...	6
Sundries	...	...	...	6
				<hr/>
				1617
				<hr/>

109 of the swabs were Positive for Diphtheria. Virulence was found in 5 of the special examinations of diphtheria cultures.

Tests made under the Venereal Diseases Scheme:—

Wasserman reactions	...	...	...	113
Films, examinations for Gonococci	...	...	...	319
Exudate for Spirochaetes	...	...	...	1
				<hr/>
				433
				<hr/>

(b) Bacteriological Laboratory of the University College of Wales, Aberystwyth. Examination of milk samples taken in the County is undertaken at this laboratory.

(c) Examination of Sputum, and other specimens of tubercle bacilli is undertaken by the Welsh National Memorial Association.

### Motor Ambulance Transport Service.

*Infectious Diseases.*—The County Council possess a Motor Ambulance for the removal of cases of infectious diseases. This is stationed at the County Isolation Hospital, Tumble. During 1938 the number of patients removed to the County Isolation Hospital in the Ambulance was 284.

*Non-Infectious Diseases.*—(a)—A Red Cross Ambulance is stationed at Llandovery. This Ambulance was used 16 times during 1938, covering a total mileage of 1213 miles;

(b)—The South Eastern Industrial part of the County is well provided with Ambulances, but these facilities are lacking for the rest of the County. The County Council have no arrangement for the removal of non-infectious cases to hospital nor for the payment of Ambulance charges for necessitous non-infectious cases. The following services were rendered during 1938 by the Priory of St. John's Ambulances:—

				Cases.	Mileage.
Ammanford: Accident Car	...	...	...	267	7077
Ammanford: General Car	...	...	...	1647	25071
Llanelly:	...	...	...	753	5061
Trimsaran:	...	...	...	986	21467
Tumble:	...	...	...	1481	27305
				<hr/> 5134	<hr/> 85981

### *Cars stationed in West Glamorgan serving Carmarthenshire Areas.*

				Cases.	Mileage.
Cwmllynfell	...	...	...	1089	23441
Gowerton	...	...	...	677	9502
Gwaun-cac-Gurwen	...	...	...	1156	24987
Pontardulais	...	...	...	1007	17053
Clydach (established August, 1938)	...	...	...	156	2278
				<hr/> 4585	<hr/> 77261



In comparison with the figures for 1937 there was a slight decrease in the number of cases carried and mileage travelled in the Carmarthenshire and West Glamorgan Area, but the 18,761 cases dealt with by the Priory's co-ordinated Service throughout the South Wales Coalfield during 1938 involving mileage of 312,994 showed an increase of 520 cases and 10,754 miles.

The Priory's Contributory Scheme under which Colliery and other employees may have a call upon the service for conveyance of themselves and dependants in the household by payment of 1d. per week received continued support; and an increased number of Companies contracted for conveyance of accident cases thereby meeting their statutory obligations.

Advisory Committees representative of subscribers in all categories rendered valuable assistance in the operation of the Service; and the Priory is grateful for the keen interest taken in its work by a very large number of Lodge Officials and others who deal with the issuing of vouchers, investigation of cases of hardship, etc.

### **NURSING IN THE HOME.**

This is carried out by District Nursing Associations. There are forty-eight District Nursing Associations affiliated to the County Nursing Association, and these forty-eight Associations employ a total of fifty-three nurses, distributed as follows:—

- 7 Associations employ 8 Queen's Nurses.
- 16 Associations employ 19 State Registered Nurses.
- 25 Associations employ 25 Village Nurse Midwives.

Of the fifty-three district nurses fifty-two act as midwives in addition to district nursing, and thirty-seven undertake part-time school nursing and health visiting. Visits are paid to tubercular cases when notified by the Tuberculosis Physicians while attendances are made at Tuberculosis Dispensaries when required. A report of the work done is submitted quarterly to the Tuberculosis Medical Officer. Four new Associations were formed during the year, and this number is included in the above total.

In addition to the affiliated Associations there are two District Nursing Associations working independently, viz., the Llanelly District Nursing Association which undertakes midwifery practice mainly, and the Burry Port District Nursing Association which employs one nurse to carry out district nursing only.

## PUBLIC ASSISTANCE.

The accommodation, and work carried out in the Public Assistance Institutions of the County during 1938 is summarised in the following Tables:—

(1)—STAFF AND TOTAL NUMBER OF BEDS IN THE PUBLIC ASSISTANCE INSTITUTIONS FOR SICK MATERNITY AND MENTAL CASES AT 31st DECEMBER, 1938:—

Name of Institution.	No. of Beds on Dec. 31st, 1938 for Sick, Maternity & Mental Cases				STAFFING.				
					Medical		Nursing		
	For Men	For Women	For Children under 16	Total	Resident or Non-Resident	Whole-time or Part-time	Trained	Probationer	Assistant
Carmarthen ...	20	17	10	47	Non	Part-time	Nil	Nil	2
Llanelli ...	28	30	8	66	Non	Part-time	3	Nil	3
Llandilo ...	30	10	...	40	Non	Part-time	Nil	Nil	Nil
Total ...	78	57	18	153	...	...	3	Nil	5
									1
									9

*A Visiting Nurse midwife visits the Llandilo P.A. Institution when required.*

(2)—CLASSIFICATION OF THE ACCOMMODATION FOR SICK MATERNITY AND MENTAL CASES AND THE NUMBER OF BEDS OCCUPIED ON THE 31st DEC., 1938.

Name of Institution.	Classification of Wards.	Number of Wards	BEDS.							
			Men		Women		Children under 16		Total	
			Pro-vided	Occu-pied	Pro-vided	Occu-pied	Pro-vided	Occu-pied	Pro-vided	Occu-pied
Carmarthen ...	Chronic Sick	4	20	15	15	15	...	...	35	30
	Children	1	...	...	...	...	10	3	10	3
	Maternity	1	...	...	2	2	...	...	2	2
Llanelli ...	Chronic Sick	4	26	26	18	14	...	...	44	40
	Children	...	...	...	...	...	6	6	6	6
	Maternity	1	...	...	2	...	...	...	2	...
	Isolation	1	2	...	...	...	2	...	4	...
	Other	1	...	...	10	9	...	...	10	9
Llandilo ...	Chronic Sick	5	30	15	9	7	...	...	39	22
	Maternity	1	...	...	1	1	...	...	1	1
Grand Total ...		19	78	56	57	48	18	9	153	113

(3)—TREATMENT OF IN-PATIENTS IN PUBLIC ASSISTANCE INSTITUTIONS.

In-Patients Particulars of during year ending December 31st, 1938.	Name of Institution.			
	Carmarthen	Llanelly	Llandilo	Total
1—Total number of Admissions (including Births) ... ..	86	108	65	259
2—Number of Women confined in Hospital ... ..	3	4	2	9
3—Number of Live Births ... ..	3	4	2	9
4—Number of Still Births ... ..	Nil	Nil	Nil	Nil
5—No. of Deaths among New Born (i.e., under 4 weeks) ... ..	Nil	1	Nil	1
6—Total No. of Deaths among Children under one year (including those given in 5) ... ..	Nil	1	Nil	1
7—No. of Maternal Deaths among women admitted to Hospital for confinement ... ..	Nil	Nil	Nil	Nil
8—Total number of Deaths ... ..	19	36	12	67
9—Total No. of Discharges (including infants born in Hospital) ... ..	57	100	56	213
10—Duration of stay of Patients in 3 and 9 above—				
(a) Under 4 weeks ... ..	21	81	43	145
(b) 4 weeks and under 13 weeks ...	35	38	8	81
(c) 13 weeks and over ... ..	20	17	17	54
11—No. of Beds occupied (excluding Cots in Maternity Ward)				
(a) Average during year ... ..	26	50	26	102
(b) Highest ... ..	28	58	35	121
(c) Lowest ... ..	21	41	17	79
12—No. of Surgical Operations under General Anaesthetic (excluding Dental) ... ..	Nil	Nil	Nil	Nil
13—No. of Abdominal Sections ... ..	Nil	Nil	Nil	Nil

(4)—CLASSIFICATION OF IN-PATIENTS WHO WERE DISCHARGED FROM OR DIED IN THE PUBLIC ASSISTANCE INSTITUTIONS DURING YEAR ENDED DECEMBER 31st, 1938.

DISEASE GROUPS.	Children under 16		Men & Women	
	Dis-charged	Died	Dis-charged	Died
A.—Acute Infectious Disease ... ..	3	...	...	...
B.—Influenza ... ..	...	...	22	...
C.—Tuberculosis—Pulmonary ... ..	...	...	...	2
Non-Pulmonary ... ..	...	...	...	...
D.—Malignant Disease ... ..	...	...	10	9
E.—Rheumatism—(1) Acute Rheumatism ... ..	...	...	...	...
(2) Non-Articular Rheumatism ... ..	...	...	24	...
(3) Chronic Arthritis ... ..	...	...	23	...
F.—Venereal Disease ... ..	...	...	3	...
G.—Puerperal Pyrexia ... ..	...	...	...	...
H.—Puerperal Fever—				
(a) Women confined in Hospital ... ..	...	...	...	...
(b) Other cases ... ..	...	...	...	...
I.—Other Diseases and Accidents connected with pregnancy and childbirth ... ..	...	...	...	...
J.—Mental Diseases (a) Senile Dementia ... ..	...	...	6	...
(b) Other ... ..	...	...	...	...
K.—Senile Decay ... ..	...	...	18	15
L.—Accidental Injury and Violence ... ..	...	...	8	1
M.—Disease of Nervous System and Sense Organs ... ..	...	...	10	4
N.—Disease of Respiratory System ... ..	...	...	19	6
O.— „ „ Circulatory System ... ..	...	...	14	25
P.— „ „ Digestive System ... ..	2	...	5	1
Q.— „ „ Genito Urinary System ... ..	...	...	8	3
R.— „ „ Skin ... ..	...	...	12	1
S.— Other Diseases ... ..	...	...	...	...
T.—Mothers & Infants discharged from Maternity Wards and not included above— Mothers ... ..	...	...	8	...
Infants ... ..	5	...	...	...
U.—Any persons not falling under any of the above headings ... ..	3	2	10	1
Totals ... ..	13	2	200	68

## GENERAL STATISTICS.

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### Area.

The Administrative County which has an area of 588,472 acres, is the largest in Wales. It is divided into four municipal boroughs: Llanelly, Carmarthen, Kidwelly and Llandovery; five Urban districts: Llandilo, Newcastle Emlyn, Ammanford, Burry Port and Cwmamman; four Rural districts: Llanelly, Carmarthen, Llandilo and Newcastle Emlyn.

### Population.

At the first Census taken in 1801, the population of the whole County was 67,317. By 1901 the population was 135,328, an increase of 101 per cent. as compared with an increase during the same period of 266 per cent. for England and Wales. Between 1901 and 1911 the population of the County increased by 18.5 per cent. to 160,406, and this was followed in the next two decades respectively, by increases of 9.1 per cent. to 175,073 in 1921, and 2.3 per cent. to 179, in 1931. The mid-year population for 1938 as estimated by the Registrar General, was 172,700 (Urban 72,600, and Rural 100,100), a decrease of 1,390 on the estimated population for 1937, and of 7,380 since 1931. The estimated population for 1938 is 3,967 fewer than in 1921.

### Births.

The number of births registered in the Whole County in 1938 was 2,366, giving a birth rate of 13.7 per 1,000 of the population, as compared with 15.1 for England and Wales. Of these 2,366 births, 949 occurred in Urban districts, and 1,417 in Rural districts. The excess of births over deaths in 1938 was 305 as compared with 1,957 in 1921, and 381 in 1931.

The addition of years to the span of life which has been brought about by improved sanitation, social measures, medical science, etc., can never compensate for the loss of new lives to the population which is the consequence of the falling birth rate. The average age of the population is steadily rising, owing largely to the declining birth rate and the consequent increased proportion of lives in the older age groups, and this will tend to give rise to an increase in the death rate quite apart from public health considerations.



Of the 2,366 registered births, 80 (Urban 28 and Rural 52) were illegitimate.

### Deaths.

The total number of deaths registered during 1938 was 2,061 (Urban 858 and Rural 1,203), giving a death rate of 11.9 per 1,000 population (Urban 11.8 and Rural 12.01) as compared with 11.6 for England and Wales.

The chief causes of death during 1938 were:—

	1938.			1937.		
	No.	Rate per		No.	Rate per	
		1000			1000	
		Population.			Population.	
Heart Disease	522	3.2	...	548	3.1	
Cancer	239	1.3	...	254	1.4	
Tuberculosis (all forms)	122	.70	...	148	.85	
Cerebral Haemorrhage	122	.70	...	122	.70	
Bronchitis	62	.35	...	72	.41	
Pneumonia	88	.50	...	117	.66	
Influenza	39	.22	...	70	.40	

Deaths from these causes constituted 57.9 per cent. of the total deaths. The senile mortality as indicated by the number of deaths of persons over 65 years was 1,052.

Influenza was the most fatal infectious disease, causing 39 deaths. Diphtheria came second, accounting for 12 deaths.

### The Infant Mortality Rate.

The number of deaths under one year amounted to 123 which corresponds to a rate of 51.9 per 1,000 live births (55.5) in 1937, as compared with 53.0 for England and Wales.

### Maternal Mortality.

The number of deaths which occurred as the result of childbirth was 10, giving a maternal mortality rate of 4.2 per 1,000 live births, or 4.004 per 1,000 total births (live and still births).

## ACUTE INFECTIOUS DISEASES.

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### Small Pox.

No cases of Small Pox were notified during the year. The number of Certificates of successful Primary Vaccinations of children under 14 received during the year was 1,325. Statutory declarations of conscientious objection to vaccination were received in respect of 567 cases. Table III. shows the returns respecting the vaccination of children in each district in the County for the year 1938.

### Diphtheria.

207 cases of Diphtheria were notified during the year (132 Urban and 75 Rural), with 12 deaths (Urban 7, Rural 5), giving a death rate equivalent to .06 per 1,000 of the population.

279 cases were notified during 1937 (114 Urban and 165 Rural), and 17 deaths equivalent to .09 per 1,000 of the population.

*Diphtheria Immunisation in Schools.*—During the year, the work of diphtheria immunisation was undertaken among the children attending Gwendraeth Council, Bankffosfelen Council, Garnant Council, Cwmamman Non-Provided, Glanamman Council, Brynamman Council, Cefnbrynbrain Council and Ystradowen Council Schools. Very close co-operation has taken place in connection with this work with the local Sanitary Authorities in the County, and I wish to record my appreciation of the active co-operation of the local Medical Officers of Health. I must also pay tribute to the Headteachers for their active assistance.

The first large-scale diphtheria immunisation scheme in the County was commenced in 1935, and a feature of the work has been the very high percentage of consents to immunisation. There is a keen demand for the work to be undertaken in other parts of the County, but there seems to be a growing and unfortunate inclination on the part of the Education Committee to leave the matter entirely to the local Sanitary Authorities.

(b) *Immunisation at Infant Welfare Centres.*—This is carried out by the Medical Officers in charge of the Centres when immunisation is considered necessary, and special sessions are occasionally held for the purpose. The immunising material is provided free by the County Council.



### **Scarlet Fever.**

The number of cases notified during 1938 was 227 (Urban 87, Rural 140). The corresponding figures for 1937 were 256 cases (Urban 92, Rural 164). There were no deaths from Scarlet Fever during 1938.

### **Puerperal Pyrexia.**

There were 26 cases notified under the 1926 Regulations during the year as compared with 23 in 1937. There was 1 death from Puerperal Sepsis, giving a death rate of .42 per 1,000 live births, and .40 per 1,000 total births. The corresponding figures for 1937 were 5 deaths, equivalent to 1.8 per 1,000 total births. The number of deaths from other puerperal causes was 9, giving a death rate of 3.8 per 1,000 live births and 3.6 per 1,000 total births.

### **Typhoid Fever (including Paratyphoid Fever).**

The number of cases notified during 1938 was 5 (Urban 3 and Rural 2), Deaths, Nil. The corresponding figures for 1937 were: —Urban 7, Rural 1, Whole County 8, Deaths, Nil.

### **Cerebro Spinal Fever.**

No cases were notified during the year. During 1937 1 case was notified, which proved fatal.

### **Acute Poliomyelitis and Encephalitis.**

40 cases were notified during 1938, with 8 deaths. One was notified during 1937.

### **Encephalitis Lethargica.**

One case was notified during 1938 in the Urban District, and 4 deaths (Urban 2, Rural 2). Four cases were notified during 1937, and 5 deaths.

### **Infectious Diseases and the Schools.**

During the year the following Schools were closed by the Education Committee on the advice of the School Medical Officer, on account of infectious disease:—

School.	Infectious Disease.	Period of Closure.
Gwendraeth Cl. ...	Diphtheria ...	26th Jan—6th Feb.
Nantcwmrhys Cl. ...	Influenza Colds ... and Sore Throats	2nd Feb.—13th Feb.
Conwil Elvet Cl. ...	Influenza and Chicken Pox	24th Feb.—6th Mar.
Cwmcothi Cl. ...	Influenza ...	2nd Mar.—6th Mar.
Gwynfryn Cl. ...	Influenza ...	7th Mar.—20th Mar.
Pontyates Cl. ...	Influenza ...	8th Mar.—13th Mar.
Gwendraeth Cl. ...	Diphtheria ...	8th Mar.—20th Mar.
Llangunnor N.P. ...	Measles ...	11th Mar.—20th Mar.
Abernant N.P. ...	Measles ...	16th Mar.—27th Mar.
Idole Cl. ...	Influenza ...	16th Mar.—27th Mar.
Peniel Cl. ...	Influenza ...	17th Mar.—27th Mar.
Llanegwad N.P. ...	Measles ...	17th Mar.—27th Mar.
Trapp N.P. ...	Diphtheria and Measles	21st Mar.—27th Mar.
Penybont Cl. ...	Influenza ...	24th Mar.—3rd Apr.
Cwmbach Cl. ...	Influenza ...	28th Mar.—3rd Apr.
Peniel Cl. ...	Influenza and Measles	31st Mar.—3rd Apr.
Penybont Cl. ...	Measles and Chicken Pox	11th Apr.—14th Apr.
Trimsaran Cl. ...	Infantile Paralysis	30th Aug.—6th Sept.
Pembrey Cl. ...	Infantile Paralysis	30th Aug.—25th Sept.
Pembrey N.P. ...	Infantile Paralysis	30th Aug.—25th Sept.
Abernant N.P. ...	Infantile Paralysis	23rd Sept.—16th Oct.
Felinfoel Cl. ...	Infantile Paralysis	20th Oct.—13th Nov.
Felinfoel N.P. ...	Infantile Paralysis	20th Oct.—13th Nov.
Nantygroes Cl. ...	Mumps ...	24th Oct.—6th Nov.
Salem Cl. ...	Infantile Paralysis	12th Sept.—6th Nov.
Capel Isaac Cl. ...	Infantile Paralysis	10th Oct.—6th Nov.
Burry Port Boys' Cl. ...	Infantile Paralysis	21st Oct.—6th Nov.
Burry Port Girls' Cl. ...	Infantile Paralysis	21st Oct.—6th Nov.
Burry Port Infants' Cl. ...	Infantile Paralysis	21st Oct.—6th Nov.
Burry Port Central	Infantile Paralysis	21st Oct.—6th Nov.
Copperworks Cl. ...	Infantile Paralysis	22nd Oct.—6th Nov.
Clawddowen Cl. ...	Infantile Paralysis	7th Oct.—30th Oct.
Llandebie N.P. ...	Mumps ...	19th Oct.—23rd Oct.

Certificates were also issued to Schools where the attendance fell below 60 per cent. for a complete week on account of an epidemic of infectious disease. These certificates enable the

attendance for the period to be disregarded for grant purposes  
The following is a summary of the low attendance certificates  
issued during the year:—

Infectious Disease.				No. of Departments.	No. of Weeks.
Measles	...	...	...	14	39
Measles and Influenza	...	...	...	2	9
Measles and Chicken Pox	...	...	...	2	8
Measles and Scarlet Fever	...	...	...	2	3
Measles and Diphtheria	...	...	...	1	2
Mumps	...	...	...	13	26
Mumps and Whooping Cough	...	...	...	1	3
Influenza	...	...	...	17	20
Influenza and Bronchitis	...	...	...	1	2
Influenza and Scarlet Fever	...	...	...	1	2
Influenza, Bronchitis and Sore Throats	...	...	...	1	1
Influenza Colds and Sore Throats	...	...	...	1	1
Influenza and Chicken Pox	...	...	...	1	1
Gastric Influenza	...	...	...	1	1
Diphtheria	...	...	...	4	16
Whooping Cough	...	...	...	3	3
Colds	...	...	...	6	6
Bronchial Colds	...	...	...	1	2
Total ...				72	145
Number of Individual Departments involved				...	53

### COUNTY ISOLATION HOSPITAL

The Hospital is situated on high, open ground, in a site about eight and a half acres in area and about half a mile from Tumble. It consists of the following buildings:—

(1) *A Porter's Lodge and Administrative Block* commanding the entrance. The administrative block contains sleeping, sitting and dining room accommodation for the Matron, Nurses and Maids, a Medical Officer's room, a dispensary, store-room, kitchen, etc. There is sufficient bedroom accommodation for a staff of approximately 22.

(2) There is accommodation for 44 patients arranged as follows:—

(a) *Diphtheria Pavilion*—22 beds in wards and 2 single separation wards. One separation ward in this pavilion has been converted into an Operating Theatre, while the other accommodates an "Iron Lung."

- (b) *Scarlet Fever Pavilion*—10 beds in wards and 2 single separation wards;
- (c) *Cubicle Block*—8 cubicles separated by glazed partitions.

All 3 Blocks have been in use, but the Scarlet Fever block was closed off and on for several months. It is felt that the number of cubicles is really inadequate. More cubicles would enable a wider variety of cases to be nursed, whereas in the Scarlet Fever Pavilion one disease only can be treated. A ward might have to be opened for the sake of only one patient who would require at least one day and one night nurse.

(3) *Outbuildings*.—These consist of a laundry, disinfecting chamber, mortuary and garage.

The water supply is derived from the mains of the Llanelly Rural District Council, while the sewage disposal plant consists of septic tanks with aeration beds, the effluent being conducted into an open channel. The Hospital is heated by open fireplaces and central heating. Electric light is used for artificial lighting.

The infectious diseases which may be treated at the Hospital are:—

Scarlet Fever, Diphtheria, Enteric, Puerperal Fever, Poliomyelitis, Polioencephalitis, Cerebro Spinal Meningitis and Encephalitis Lethargica.

During the year 1938, 304 patients were admitted to the Hospital. Particulars of the conditions from which these patients suffer are as follows:—

#### *Diphtheria.*

151 patients were admitted with the diagnosis of diphtheria.

Of these 10 were *Diphtheria Carriers* (3 Faucial, 5 Nasal and 2 Nasal and Faucial), while a further 37 on rediagnosis after admission were found to be suffering from the following conditions:—Tonsillitis—30, Laryngitis—2, Scarlet Fever—3, Polio-encephalitis—1, Measles—1.

There were therefore 104 cases of true Diphtheria which could be sub-divided as follows:—

Faucial 81, Nasopharyngeal 7, Faucial and laryngeal 4, Nasal 1, Nasopharyngeal and Laryngeal 1, Primary Laryngeal 4, Faucial and Nasal 6.

There were 6 deaths, giving a case mortality of 5.76 per cent.

The following is a summary of the deaths:—

Variety.	Age.	Sex.	Day of Disease on Admission
Faucial & Laryngeal	4	M.	6th day—Tracheotomy
Faucial	9	M.	2nd day
Nasopharyngeal	10	F.	4th day
”	11	M.	4th day
Faucial & Nasal	9	F.	6th day
Faucial	9	M.	6th day

This short table is sufficient to emphasise the need for early diagnosis and early administration of antitoxin.

The principal complications met with were:—

Tonsillitis—6, Peritonsillar abscess—1, Otagia—1 and Otorrhoea—1, Bradycardia—4, Concurrent Chicken Pox—3.

Post Diphtheritic Paralysis ... .. 15

Palatal Paresis 8, Pharyngeal Paralysis 1, Nuchal Paralysis 1, Ciliary Paresis 1, Strabismus 3, Paresis of legs 1.

Serum rashes occurred in 6 cases after antitoxin administration.

*Occurrence of Diphtheria in Children previously immunised:—*

18 children, notified as diphtheria had been immunised. Of 13 who had been fully immunised, 10 were true diphtheria, and all of the faucial variety. They were very mild cases and made a good uncomplicated recovery, except one who developed a small peritonsillar abscess during convalescence. The remaining 3 were diagnosed as tonsillitis.

Of the remaining 5 who had been partially immunised, 4 were mild uncomplicated faucial diphtheria and one tonsillitis.

### *Scarlet Fever.*

86 cases were admitted with a diagnosis of scarlet fever, while a further 3 cases notified as Diphtheria were actually cases of Scarlet Fever.

One case was finally diagnosed as Cellulitis of Eyelid. 88 true cases of Scarlet Fever were treated, of which 84 were plain Scarlet Fever; 1 Scarlet Fever following Fractured Cleivle, 1 following Appendicectomy, 1 with concurrent chicken-pox and 1 with septic eyelid.

There were no deaths.

The type of the disease was in the main of a very mild character throughout the year. Some cases were treated with Anti-scarlatinal serum (A.S.S.), others with Prontosil and the remainder received neither.

Treated with A.S.S.	...	...	22
Desquamation occurred in 2; No desquamation, 20			
Treated with Prontosil	...	...	23
Desquamation occurred in 17. No desquamation 6			
Neither administrated	...	...	43
Desquamation occurred in 26. No desquamation 17			

It would appear that Prontosil exerts no effect on the incidence of desquamation, but serum certainly does. The use of serum therefore materially shortens the stay of the patient in hospital. It is felt that it is undesirable to discharge patients while desquamating, although it is realised that patients are then non-infectious.

Of cases treated with A.S.S., 2 developed serum rashes. Of those treated with Prontosil, 1 developed a morbilliform rash and 1 transient cyanosis.

The following were the chief complications:—

	A.S.S.	Prontosil.	Neither.	Total
Cervical Adenitis	... Nil	3	2	5
Albuminuria	... Nil	2	Nil	2
Rhinorrhoea	... 1	1	Nil	2
Otorrhoea	... Nil	1	Nil	1
Herpes Labialis	... 1	Nil	Nil	1
Quinsy	... Nil	Nil	1	1
Eczema	... Nil	Nil	1	1
Tonsillitis	... Nil	1	1	2

#### *Immunisation of Scarlet Fever patients against Diphtheria:*

Mild cases of Scarlet Fever were selected. They were Schick-tested with the following results:—

9 previously immunised at school—all Schick negative:



- 9 partially immunised at school (2 T.A.F. injections)—1 Schick negative and 1 Schick positive. The immunisation of the latter was completed;
- 1 partially immunised at school (1 T.A.F.)—Schick negative;
- 51 non-immunised patients were Schick tested and some Moloney tested;
- 18 Schick negative—of whom 5 were Moloney positive and 6 Moloney negative;
- 33 were Schick positive—some were Moloney tested while in the case of the remainder the 1st injection of A.P.T. was used as a test dose for reaction;
- 24—immunised by A.P.T.—2 shots. Two only developed a slight reaction at the site of injection;
- 4—immunised by A.P.T.—1 shot. One developed slight local reaction;
- 4—were Moloney positive and were immunised by T.A.F. (3 injections);
- 1—developed intense reaction at site of injection after the 1st dose A.P.T., and had her immunisation completed by 2 further doses of T.A.F.

### *Puerperal Pyrexia.*

15 cases were notified and the final classification was as follows:

Puerperal Pyrexia	.....	...	...	...	5
Puerperal Pyrexia and Primary Hyperchromic Anaemia					1
Puerperal Pyrexia and Haemoptysis of Unknown Origin					1
Puerperal Septicaemia		...	...	...	1
Puerperal Sepsaemia	...	...	...	...	1
Puerperal Sepsaemia and Phlegmasia Alba Dolenis			...	...	1
Septic Abortion	...		...	...	2
Septic Abortion and Pleural Effusion	...		...	...	1
Septic Abortion and Concurrent Scarlet Fever			...	...	1
Mastitis	...	...	...	...	1

All cases were treated with Prontosil.

There was one death—the case of Puerperal Septicaemia.

Death rate per cent—6.66.

### *Measles.*

3 cases were admitted with a diagnosis of measles, while another case notified as Diphtheria was actually a case of Measles.

All recovered and were uncomplicated except for one who developed blepharitis which cleared with treatment.

### *Enteric Fever.*

3 cases were admitted with a diagnosis of enteric fever; 2 were discharged with a final diagnosis of Enteric Fever; 1 was admitted as Enteric Fever, but this case died before a full investigation was performed. The final diagnosis was—Heart Failure due to Gastro-enteritis of Unknown Cause.

Dr. Sladden visited one case on 8/7/38 to carry out necessary pathological tests,—blood culture, etc.

### *Infantile Paralysis.*

26 cases were admitted with a diagnosis of Infantile Paralysis, and 2 more, notified as Meningitis, proved to be victims of this disease.

Of the 28 cases, 25 occurred in children between the ages of 1 and 14. The other 3 occurred in persons aged from 16—19.

19 Males were affected, and only 9 Females.

Cases were detained on the average for 6 weeks, after which time it was considered there was no danger of their being infectious.

The Orthopaedic Surgeon, Mr. A. O. Parker, visited 2 cases on 11/8/38, and 5 cases on 30/9/38.

There were 4 deaths, all from Respiratory Paralysis. In treatment, drugs such as Prontosil and Potassium Chlorate were used in the acute stage, but there was no evidence of their having any effect on the course of the disease. The case mortality was 14.3%.

### *Acute Polioencephalitis.*

There were 2 cases, one of which was notified as Laryngeal Diphtheria. The latter was a girl of 6 who died on the 2nd day after admission. It is interesting to note that she had had tonsillectomy performed 14 days previously.

The other case was a man of 35 who was extensively paralysed and died an hour after admission.

The cause of death in both cases was exhaustion due to Pharyngeal Paralysis. Case mortality was 100%.



### *Cerebro-spinal Fever.*

3 cases were admitted. One was true cerebro-spinal fever, was treated by lumbar puncture and prontosil, and made a good recovery. The other 2 turned out to be cases of infantile paralysis and are included in the statistics for that disease. One of these latter cases was visited by Dr. Sladden on 22/7/38 for the necessary pathological investigation.

### *Ophthalmia Neonatorum.*

3 cases were admitted. None was of the gonococcal variety. 2 were discharged with a final diagnosis of purulent staphylococcal conjunctivitis and 1 with a diagnosis of Dacrocystitis.

### *Erysipelas.*

7 cases were notified. 1 was a case of Facial Eczema and so there were 6 cases of Erysipelas. 5 of them were of the Facial variety, and the other a case of Erysipelas of the leg.

All were treated with Prontosil, on which drug they usually made considerable progress.

There was one death—that of an infant who developed convulsions.

### *Laboratory Work.*

This is conducted by the Beck Laboratory, Swansea. The bulk of the work is the examination of Diphtheria Swabs with occasional Virulence Tests. However, from time to time specimens of blood, sputum, cerebro-spinal fluid, etc. have been examined.

### *Immunisation of Staff against Diphtheria.*

Anterior Schick Tests:—23 were performed of which 4 were positive and 19 negative. The 4 susceptibles were immunized as follows:—

- 1 with T.A.M.—3 injections;
- 2 with T.A.F.—3 injections;
- 1 partially immunized with T.A.F. (1 injection) left before immunization was completed;
- 1 immunized with T.A.F. developed erythema of the arm and slight pyrexia after her first 2 injections, but developed no reaction after the third.

*Posterior Schick Tests.*

9 of the Staff had been previously immunized. 7 were Schick negative and 2 fairly positive. To each of the latter a single injection of T.A.F. was given to complete immunity.

**VENEREAL DISEASES.**

The diagnosis and treatment of County cases suffering from Venereal Diseases is undertaken at the Swansea General Hospital Clinic. The total number of new cases attending for the first time as Outpatients during 1938 was 185, as compared with 175 for 1937. Of these there were 29 who suffered from Syphilis, 133 from Gonorrhoea, and 23 from conditions other than venereal. In addition 21 patients were admitted for treatment as In-Patients as compared with 10 in 1937. The total number of attendances of all patients at the Centre in 1938 was 3224 as compared with 3234 in 1937. The cost charged to the County Council for treatment at the Centre in 1938 was £768. 2s. 6d., as compared with £686. 6s. 4d. in 1937.

The amount paid as Travelling Expenses to and from the Swansea Treatment Clinic was £80. 19s. 1d., as compared with £61. 18s. 1d. in 1937. Each claim for travelling expenses is investigated.

**TUBERCULOSIS.**

The Council have contracted with the Welsh National Memorial Association for the institutional treatment of Tuberculosis. The work of the Association is carried out at:

**(1).—Tuberculosis Dispensaries.**

These serve primarily as Centres for diagnosis, examination, advice and prevention, and are attended by patients sent by doctors, cases under observation and patients under treatment at home. From the dispensary patients are drafted back to their private practitioners, or to the various sanatoria or hospitals. The Medical Staff and the Dispensaries which they attend are as follows:—

Dr. MARTIN P. THOMAS.

Carmarthen: 5 Spilman Street.—Saturday, 9.30 a.m.

Llanelly: 23 Greenfield Villas.—Mondays, 10.30 a.m.; Thursdays, 10.30 a.m.

Llanelly: 23 Greenfield Villas.—Surgical Clinic. By appointment.  
 Ammanford: 24a Quay Street.—Tuesdays, 10.30 a.m.  
 Drefach: Dr. Wallace's Surgery.—By appointment.  
 Cross Hands: Dr. Griffiths' Surgery.—3rd Tuesday afternoon.  
 Tumble: Dr. Evans' Surgery.—2nd Friday morning.  
 West Wales Sanatorium and Country Visits:—Wednesdays.  
 Pontyberem, Pontyates, Pencader, St. Clears Districts and Mental  
 Hospital.—By appointment.

Dr. J. KENYON DAVIES.

Velindre (Carm.): Maes-yr-Ywen.—2nd and 4th Fridays, 2.30 p.m.  
 Llandilo: Cawdor Cottage, Ffairfach.—First Saturday in each  
 month, 2.30 p.m.  
 Llandovery: 20 High Street.—1st Friday in each month, 2 p.m.  
 Newcastle Emlyn: Cawdor Reading Room—2nd and 4th Fridays.  
 1 p.m.

(2).—**Sanatoria and Hospitals.**

The institutions provided by the Welsh National Memorial Association for the treatment of tuberculous patients are as follows:—

Institution.	No. of Beds.	Cases Treated.
The South Wales Sanatorium, Talgarth ... ..	286	Pulmonary Male Patients.
The North Wales Sanatorium, Llangwyfan ... ..	247	Pulmonary Female Patients, Surgical Tuberculosis in Men, Women and Children.
"Highland Moors," Llandrindod Wells ... ..	60	Boys and Adolescents.
The West Wales Sanatorium, Llanybyther ... ..	50	Women and Children Pulmonary Cases.
The Penhesgyn Open-air Home, Menai Bridge ... ..	16	Female Children Pulmonary Cases.
<i>Hospitals.</i>		
The Glan Ely Hospital, Fairwater, near Cardiff ... ..	196	Men, Women and Children Pulmonary and Surgical Cases.
Adelina Patti Hospital, Craig-y-nos ... ..	126	
Cefn Mably Hospital, near Cardiff	112	Male and Female—Pulmonary Cases.
Pontsarn Hospital, Merthyr Tydfil	38	
Cymla Hospital, Neath ... ..	60	
Tregaron Hospital, Tregaron ..	32	
Meadowslea Hospital, Penyffordd ...	59	
Brynseiont Hospital, Carnarvon ...	40	
Llangefni Hospital, Llangefni ..	24	
Sealyham Hospital, Wolf's Castle...	30	
Maehynlleth Hospital, Maehynlleth	34	Surgical Cases in Children.
Sully Hospital, Sully, Glam. ...	300	
Kensington Hospital, St. Brides ...	106	
Total No. of Beds in Association's own Institutions ... ..	1816	
Beds rented by Association at outside Institutions ... ..	149	
	1965	

### Notifications.

The number of Primary Notifications of new cases of tuberculosis during 1938 was 228, of whom 177 were pulmonary cases (95 males and 82 females) and 51 non-pulmonary (32 males and 19 females). In addition 19 cases came to the knowledge of the Medi-

cal Officer of Health other than by formal notification, viz., 16 from Death Returns from the local Registrars, and 3 from Transferable deaths from the Registrar General.

There is complete interchange of information with regard to notifications received, between the Tuberculosis Officers, the District Medical Officers of Health and the County Medical Officer. The general practitioner notifies the District Medical Officer of Health who sends weekly returns of the notifications received to the County Medical Officer of Health. A copy of the weekly returns is forwarded to the Tuberculosis Officer who in turn notifies the County Medical Officer of any cases coming to his notice, and this information is forwarded to the District M.O.H. concerned.

The following Table shows the total known number of new cases of tuberculosis for each of the last 10 years:—

Year	Pulmonary Tuberculosis.				Non-Pulmonary Tuberculosis.				Tuberculosis all forms
	Primary Notifications	Supplemental Returns	Total known Cases.	Case Rate per 1000 Population.	Primary Notifications	Supplemental Returns	Total known Cases.	Case Rate per 1000 Population.	Total known Cases.
1929	217	44	261	1.4	62	1	63	.34	324
1930	190	30	220	1.2	56	5	61	.33	281
1931	195	23	218	1.2	69	9	78	.43	296
1932	236	26	262	1.4	52	7	59	.32	321
1933	187	30	217	1.2	43	8	51	.28	268
1934	247	20	267	1.5	60	1	61	.34	328
1935	227	4	231	1.3	77	3	80	.45	311
1936	212	27	239	1.3	43	4	47	.26	286
1937	200	9	209	1.2	61	3	64	.36	273
1938	177	16	193	1.1	51	3	54	.31	247

It will be seen from the preceding Table that the number of new cases of Tuberculosis per year as shown by the primary notifications and supplemental returns has varied in the last 10 years between 1.5 and 1.1 per 1,000 of the population for pulmonary tuberculosis, and between .45 and .26 for non-pulmonary tuberculosis.

The following Tables show a summary of the primary notifications of Tuberculosis received during 1938 and of new cases coming to the knowledge of the Medical Officer of Health otherwise than by formal notification:—

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1930.  
SUMMARY OF NOTIFICATIONS RECEIVED DURING THE PERIOD FROM 1st JANUARY, 1938. TO THE 31st  
DECEMBER, 1938.

FORMAL NOTIFICATION.

Number of Primary Notifications of new cases of Tuberculosis.

AGE PERIODS.	Number of Primary Notifications of new cases of Tuberculosis.										Total All Ages	Total Notifi- cations.
	0-1	1-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65	65 and upwards	
Pulmonary—Males ...	...	...	2	2	11	22	14	17	18	9	...	186
Do. —Females ...	...	...	3	5	15	16	23	10	5	5	...	151
Non-Pulmonary—Males ...	...	9	4	4	4	5	1	4	1	...	...	47
Do. —Females ...	...	...	1	3	3	4	7	...	...	1	...	34
Total ...	...	9	10	14	33	47	45	31	24	15	...	418

COMPARISON TABLE WITH PREVIOUS YEARS.

1933	1934	1935	1936	1937	1938
230	307	304	255	261	228



# SUPPLEMENTAL RETURNS.

NEW Cases of Tuberculosis coming to the knowledge of the Medical Officer of Health or the Chief (Administrative) Tuberculosis Officer during the period from the 1st January, 1938, to the 31st December, 1938 OTHERWISE than by formal notification.

Age Periods.	0-1	1-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65	65 and upwards	Total Cases
Pulmonary—Males ...	...	...	...	...	...	...	...	1	4	4	...	9
Do. —Females ...	1	...	...	...	...	...	...	...	2	2	2	7
Non-Pulmonary—Males ...	...	...	...	...	...	...	...	...	...	...	1	1
Do. —Females ..	...	...	...	1	...	...	...	1	...	...	...	2
Total	1	...	...	1	...	...	...	2	6	6	3	19

Source of Information.	Number of Cases.	
	Pulmonary	Non-Pulmonary
Death Returns From Local Registrars	14	2
Death Returns: Transferable deaths from Registrar General	2	1
“Transfers” from other areas other than Transferable Deaths	...	...
Posthumous Notifications	...	...
Other sources, if any	...	...



The occupation of cases of tuberculosis notified during 1938 was as follows:—

Pulmonary (Males).			Pulmonary (Females).		
School Teachers	...	1	Housework	...	40
No occupation	...	15	No occupation	...	9
Colliers	...	10	Domestic Servants	...	3
Labourers	...	11	School Children	...	8
Tinworkers	...	7	School Teachers	...	1
School Children	...	3	Nurses	...	5
Bank Clerks	...	—	Farm Workers	...	1
Farm Labourers	...	1	Clerks	...	2
Farmers	...	4	Shop Assistants	...	2
Shop Assistants	...	1	Students	...	—
Clerks	...	3	Others	...	9
Grocers	...	—			
Salesmen	...	2			
Postmen	...	1			
Students	...	3			
Others	...	33			
		<hr/>			<hr/>
		95			80

Non-Pulmonary (Males)			Non-Pulmonary (Females).		
No occupation	...	10	No occupation	...	3
School Children	...	9	Farm Labourers	...	1
Colliers	.....	—	School Children	...	1
Farmers	...	1	Housework	...	9
Farm Labourers	...	1	Domestic Servants	...	3
Tinworkers	...	1	School Teachers	...	—
Labourers	...	1	Children under 5 years	...	—
Others	...	8	Others	...	2
		<hr/>			<hr/>
		31			19

Under "Others" in the above Tables are included various occupations each of which provided one case of Tuberculosis.

### Notification Register.

The total number of cases of Tuberculosis remaining on the registers kept by the District Medical Officers of Health at the end of 1938, and the number of cases removed during 1938 was as follows:—

	Pulmonary.			Non-Pulmonary.			Total.
	Male	Female	Total	Male	Female	Total	
No. of cases of T.B. on registers of District M.O.H.s. at end of 1938 ... ..	787	616	1403	281	238	519	1922
No. of cases removed from register during year by reason of:—							
Withdrawal of Notification ...	5	3	8	4	3	7	15
Cure ... ..	7	21	28	16	22	38	66
Death ... ..	58	62	120	13	2	15	135
Other reasons ...	25	21	46	13	7	20	66

### Mortality from Tuberculosis.

The number of deaths from tuberculosis in 1938 was 122 (50 Urban and 72 Rural) giving a death rate of .706 per 1,000 of the population. Of the deaths 101 were due to pulmonary tuberculosis (52 Males and 49 Females), and 21 to non-pulmonary tuberculosis (12 Males and 9 Females).

The following Table shows the deaths from Tuberculosis in Carmarthenshire in recent years:—

Year	Population.	No. of Deaths.			Death rate per 1000 Population.		
		Pulmonary TB.	Non-Pulmonary TB.	TB. All Forms	Pulmonary TB.	Non-Pulmonary TB.	TB. All Forms
1921	176667	215	46	261	1.2	.26	1.5
1928	181100	135	42	177	.75	.23	.98
1929	181280	174	26	200	.96	.14	1.1
1930	180600	133	29	162	.74	.16	.90
1931	180080	130	30	160	.72	.17	.89
1932	179290	144	26	170	.80	.14	.95
1933	177950	129	28	157	.72	.16	.88
1934	177850	110	25	135	.62	.14	.76
1935	176900	139	30	169	.79	.17	.96
1936	176390	162	31	193	.92	.18	1.09
1937	174090	122	26	148	.70	.15	.85
1938	172700	101	21	122	.58	.12	.706

The following Table shows the deaths from Tuberculosis classified into the various age groups for the year 1938:—

Age Periods	Deaths from Tuberculosis.			
	Pulmonary.		Non-Pulmonary	
	Male	Female	Male	Female
0 —	...	...	...	...
1 —	...	...	2	1
5 —	...	1	1	2
15 —	8	16	3	1
25 —	9	12	...	1
35 —	10	4	3	1
45 —	10	9	1	2
55 —	13	4	...	...
65 —	2	3	2	1
Total ...	52	49	12	9

The number of deaths from Tuberculosis and the death rate per 1000 of the population in each of the Urban and Rural districts of the County for 1938 as compared with the years 1930—1937 is tabulated as follows:—

District.	No of Deaths from TB. (All Forms)								1938.	
	1930	1931	1932	1933	1934	1935	1936	1937	No. of Deaths	Death Rate.
<i>Urban</i>										
Llanelly ...	35	33	40	35	29	32	44	37	27	.73
Carmarthen	4	14	15	8	9	16	18	8	3	.27
Llandilo ...	...	3	...	2	...	...	3	2	2	1.5
Llandovery	2	...	2	1	...	1	2	2	1	.49
Kidwelly ...	2	2	1	3	2	1	3	3	...	...
N. C. Emlyn	...	...	3	1	...	...	...	...	2	2.5
Ammanford ...	6	2	9	2	4	12	13	6	5	.709
Burry Port ...	6	5	4	7	7	3	3	...	4	.73
Cwmamman	3	1	4	4	1	4	3	8	6	1.23
<i>Rural</i>										
Llanelly ...	32	32	37	36	27	42	43	33	24	.66
Carmarthen	29	28	22	34	21	26	31	26	18	.65
Llandilo ...	31	25	24	18	22	22	25	18	22	.75
N. C. Emlyn	12	15	9	6	13	7	6	5	8	.93
Whole County	162	160	170	157	135	169	193	148	122	.70

The following Tables show the deaths and death rates from pulmonary and non-pulmonary Tuberculosis in each of the Urban and Rural Districts for the years 1931—1938.

DEATHS FROM PULMONARY TUBERCULOSIS AND DEATH RATE PER 1000  
POPULATION FOR THE YEARS 1931—38.

District.	1931		1932		1933		1934		1935		1936		1937		1938	
	Deaths	Rate per 1000	Deaths	Rate per 1000	Deaths	Rate per 1000	Deaths	Rate per 1000	Deaths	Rate per 1000	Deaths	Rate per 1000	Deaths	Rate per 1000	Deaths	Rate per 1000
<b>URBAN.</b>																
Llanelli	28	.72	33	.85	31	.81	26	.68	30	.79	39	1.03	33	.88	22	.59
Carmarthen	13	1.27	12	1.13	5	.47	5	.46	14	1.3	13	1.19	5	.45	2	.18
Llandilo	3	1.59	...	...	2	1.03	...	...	2	1.02	1	.5	1	.52	1	.52
Llandovery	...	...	1	.47	1	.48	...	...	1	.49	2	.97	2	.98	1	.49
Kidwelly	1	.31	1	.31	2	.64	1	.32	...	...	3	1.001	1	.33	...	...
Newcastle Emlyn	...	...	2	2.56	1	1.28	...	...	...	...	...	...	...	...	2	2.5
Ammanford	2	.27	9	1.23	2	.27	4	.55	12	1.6	11	1.5	5	.71	4	.57
Burry Port	4	.69	3	.52	6	1.06	5	.88	3	.53	3	.5	...	...	4	.73
Cwmaman	...	...	3	.57	4	.76	...	...	4	.77	1	.19	7	1.41	5	1.2
Total	51	.68	64	.85	54	.72	41	.55	66	.88	73	.98	54	.73	41	.56
<b>RURAL.</b>																
Llanelli	23	.61	32	.85	29	.77	21	.56	36	.97	36	.97	25	.68	21	.58
Carmarthen	23	.78	20	.68	28	.97	19	.66	19	.66	25	.87	23	.81	15	.53
Llandilo	19	.65	21	.73	12	.42	17	.601	14	.49	22	.78	16	.57	17	.61
Newcastle Emlyn	14	1.5	7	.78	6	.68	12	1.37	4	.45	6	.68	4	.46	7	.81
Rural	79	.75	80	.76	75	.72	69	.67	73	.71	89	.87	68	.67	60	.59
Urban	51	.68	64	.85	54	.72	41	.55	66	.88	73	.98	54	.73	41	.56
Whole County	130	.72	144	.80	129	.72	110	.62	139	.79	162	.92	122	.70	101	.58



DEATHS FROM NON-PULMONARY TUBERCULOSIS AND DEATH RATE PER 1000  
POPULATION FOR THE YEARS 1931-38.

45

District.	1931		1932		1933		1934		1935		1936		1937		1938	
	Deaths	Rate per 1000	Deaths	Rate per 1000	Deaths	Rate per 1000	Deaths	Rate per 1000	Deaths	Rate per 1000	Deaths	Rate per 1000	Deaths	Rate per 1000	Deaths	Rate per 1000
<i>URBAN.</i>																
Llanelly	5	.12	7	.18	4	.101	3	.07	2	.05	5	.13	4	.107	5	.12
Carmarthen	1	.09	3	.28	3	.28	4	.37	2	.18	5	.46	3	.27	1	.09
Llandilo	...	...	...	...	...	...	...	...	1	.5	1	.5	1	.52	1	.52
Llandovery	...	...	1	.47	...	...	...	...	...	...	...	...	...	...	...	...
Kidwelly	1	.31	...	...	1	.32	1	.32	1	.33	...	...	2	.67	...	...
Newcastle Emlyn	...	...	1	1.28	...	...	...	...	...	...	...	...	...	...	...	...
Ammanford	...	...	...	...	...	...	...	...	...	...	2	.28	1	.14	1	.14
Burry Port	1	.17	1	.17	1	.17	2	.35	...	...	...	...	...	...	...	...
Cwmanman	1	.19	1	.19	...	...	1	.19	...	...	2	.38	1	.201	1	.125
Total	9	.12	14	.18	9	.12	11	.14	6	.08	15	.202	12	.16	9	.12
<i>RURAL.</i>																
Llanelly	9	.23	5	.13	7	.18	6	.16	6	.16	7	.19	8	.22	3	.082
Carmarthen	5	.17	2	.06	6	.208	2	.06	7	.24	6	.21	3	.106	3	.107
Llandilo	6	.207	5	.17	6	.21	5	.17	8	.28	3	.106	2	.07	5	.18
Newcastle Emlyn	1	.109	...	...	...	...	1	.11	3	.34	...	...	1	.11	1	.11
Rural	21	.19	12	.11	19	.18	14	.13	24	.23	16	.15	14	.13	12	.11
Urban	9	.12	14	.18	9	.12	11	.14	6	.08	15	.202	12	.16	9	.12
Whole County	30	.16	26	.14	28	.15	25	.14	30	.169	31	.17	26	.15	21	.12

### Institutional Treatment.

Tables B, C, and D, summarises the extent and results of institutional treatment. It will be seen from Table B, that 177 County Cases were admitted into the Institutions of the Welsh National Memorial Association during the year. Of these 42 or 23.7% were admitted for observation, 103 or 171.9% were admitted for pulmonary tuberculosis, 32 or 18.07% for non-pulmonary tuberculosis.

TABLE A.—Showing the work of the Dispensaries during the year ended December 31st, 1938.

	Pulmonary				Non-Pulmonary				Total.				Grand Total.
	Adults.		Children		Adults.		Children		Adults.		Children		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
A. <i>New Cases</i> examined during the year (excluding contacts) ... ..	67	54	2	5	8	7	3	1	75	61	5	6	147
(a) Definitely tuberculous	...	...	...	...	...	...	...	...	85	81	29	21	216
* (b) Diagnosis not completed ... ..	...	...	...	...	...	...	...	...	159	88	37	27	311
(c) Non-Tuberculous ... ..													
B. <i>Contacts</i> examined during the year:— ... ..	1	...	...	...	...	...	...	...	1	...	...	...	1
(a) Definitely tuberculous	...	...	...	...	...	...	...	...	4	4	6	3	17
* (b) Diagnosis not completed ... ..	...	...	...	...	...	...	...	...	2	5	4	2	13
(c) Non-Tuberculous ... ..													
C. <i>Cases</i> written off Register as:—													
(a) Recovered ... ..	...	...	...	...	1	...	...	...	1	...	...	...	1
(b) Non-Tuberculous (including any such cases previously diagnosed and entered on Register as tuberculous ... ..	...	...	...	...	...	...	...	...	215	156	58	45	474
D. <i>Number of Cases</i> on Register on Dec. 31st:—	579	386	77	62	81	99	66	63	660	485	143	125	1413
(a) Definitely tuberculous	...	...	...	...	...	...	...	...	100	109	46	31	286
(b) Diagnosis not completed ... ..													

\*i.e., remaining undiagnosed on the 31st December, 1938.

TABLE A.—(Continued).

1. Number of cases on Register on January 1st. ...	1613	2. Number of cases transferred from other areas and cases returned after discharge under Head 3 in previous years ...	14
3. Number of cases transferred to other areas, cases not desiring further assistance under the scheme, and cases "lost sight of" ...	46	4. Cases written off during the year as Dead (all causes) ...	112
5. Number of attendances at the Clinics (including Contacts) ...	2839	6. Number of Insured Persons under Domiciliary Treatment on the 31st December ...	350
7. Number of Consultations with medical practitioners:— (a) Personal ... (b) Other ...	506 1824	8. Number of visits by Tuberculosis Officers to Homes (including personal consultations) ...	1530
9. Number of visits by Nurses or Health Visitors to homes of patients ...	2295	10. Number of:— (a) Specimens of Sputum etc., examined ... (b) X-Ray examinations made in connection with Clinic work ...	492 982
11. Number of "Recovered" cases restored to Register, and included in A(a) and A(b) above ...	5	12. Number of "T.B. plus" cases on Register on December 31st ...	344

TABLE B.—Showing the Extent of Residential Treatment and Observation during the year in Institutions approved for the treatment of Tuberculosis.

		<i>In- Institu- tions on Jan. 1.</i>	<i>Ad- mitted during year.</i>	<i>Dis- charged during year.</i>	<i>Died in Institu- tions.</i>	<i>In- Institu- tions on Dec. 31.</i>
Number of doubt-cases admitted for fully tuberculous observation.	Adult Males ...	1	9	9	...	1
	Adult Females ...	1	10	9	...	2
	Children ...	2	23	19	...	6
	Total ...	4	42	37	...	9
Number of patients suffering from pulmonary tuberculosis.	Adult Males ...	52	55	51	9	47
	Adult Females ...	22	39	20	6	35
	Children ...	6	9	9	...	6
	Total ...	80	103	80	15	88
Number of patients suffering from non-pulmonary tuberculosis.	Adult Males ...	11	7	11	...	7
	Adult Females ...	10	9	15	...	14
	Children ...	22	16	21	...	17
	Total ...	43	32	47	...	28
	<i>Grand Total ...</i>	127	177	164	15	125

TABLE C.—Showing the result of observation of doubtfully tuberculous cases discharged during the year from Institutions approved for the treatment of Tuberculosis.

Diagnosis on discharge from Observation	Pulmonary Cases.						Non-Pulmonary Cases.						TOTALS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
	Sanatorium.			Hospital.			Stay under 4 weeks.			Stay over 4 weeks.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
	M.	F.	Ch.	M.	F.	Ch.							M.	F.	Ch.	M.	F.	Ch.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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TABLE D.—Showing the Immediate results of treatment of definitely Tuberculous patients discharged during the year from Institutions approved for the treatment of Tuberculosis.  
*SANATORIUM (PULMONARY CASES).*

Classification on admission to the Institution.	Condition at time of discharge	Duration of Residential Treatment in the Institution.										Grand Total.			
		Under 3 months.		3—6 months.		6—12 months.		More than 12 months.		Total.					
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		Ch.		
Class T.B. Minus	Quiescent	...	...	3	...	5	...	2	...	1	...	9	...	3	12
	Not Quiescent	...	..	...	...	...	...	1	...	2	...	4	...	1	5
	Died	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Quiescent	...	...	...	...	1	...	...	...	...	...	1	...	...	1
Class T.B. Plus Group 1	Not Quiescent	...	...	...	...	...	...	1	...	...	...	...	...	1	1
	Died	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Quiescent	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Not Quiescent	...	...	6	2	3	...	...	1	...	...	9	3	...	12
Class T.B. Plus Group 2	Died	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Quiescent	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Not Quiescent	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Died	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Class T.B. Plus Group 3	Quiescent	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Not Quiescent	...	...	1	...	1	...	...	...	1	...	3	...	...	3
	Died	...	...	...	...	1	...	...	...	...	...	1	2	...	3
	Total ...	...	...	10	3	13	1	4	2	1	27	6	5	38	



## HOSPITAL (PULMONARY CASES.)

Class T.B. Minus.	Quiescent	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
	Not Quiescent	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	3
	Died	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Quiescent	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Class T.B. Plus. Group 1	Not Quiescent	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	2
	Died	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Quiescent	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Not Quiescent	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Class T.B. Plus. Group 2.	Quiescent	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Not Quiescent	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	5	1	12
	Died	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Quiescent	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Class T.B. Plus. Group 3	Not Quiescent	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13	9	1	23
	Died	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	3	...	10
	Total ...	5	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	30	18	3	51

TABLE E.—Showing the immediate results of treatment of definitely Tuberculous patients discharged during the year from Institutions approved for the treatment of Tuberculosis.

HOSPITAL (NON-PULMONARY CASES).														
Classifi- cation on ad- mission to the Institution	Condition at time of discharge	Duration of Residential Treatment in the Institution.										Totals.	Grand Totals.	
		Under 3 months.		3-6 months.		6-12 months.		More than 12 months.		Totals.				
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Ch.		
Bones and Joints.	Quiescent	...	...	1	...	2	...	...	...	3	...	6	9	
	Not Quiescent	...	2	2	...	1	...	2	3	5	3	13		
	Died	...	...	...	...	...	...	...	...	...	...	...		
	Quiescent	...	...	...	1	...	...	1	...	2	4	6		
Abdo- minal	No. Quiescent	...	1	...	1	...	...	...	...	...	2	...	2	
	Died	...	...	...	...	...	...	...	...	...	...	...		
	Quiescent	...	...	1	...	...	...	...	...	...	1	1		
	Not Quiescent	...	...	...	...	...	2	...	...	2	...	2		
Other Organs	Died	...	...	...	...	...	...	...	...	...	...	...		
	Quiescent	...	...	...	...	...	...	...	...	...	3	8		
	Not Quiescent	...	1	1	2	1	...	...	...	1	4	7		
	Died	...	...	...	...	...	...	...	...	...	...	...		
Peri- pheral Glands	Quiescent	...	...	...	...	...	3	...	...	...	...	...		
	Not Quiescent	...	1	1	2	1	...	1	...	...	2	7		
	Died	...	...	...	...	...	...	...	...	...	...	...		
	Totals ..	...	4	2	4	4	4	3	3	2	4	10	15	19



**CANCER.**

The number of deaths from Cancer in the County in 1938 was 239, giving a death rate of 1.3 per 1,000 population. Cancer is the second highest cause of death, and deaths from the condition are considerably in excess of those from Tuberculosis or any other disease, with the exception of heart disease which is the most frequent cause of death. The following table gives the number of deaths in the County from 1930—1938, due to the three predominant causes of deaths, viz., Heart disease, Cancer and Tuberculosis :—

Year.	Heart Disease.	Cancer.	Tuberculosis All Forms.
1930	407	227	152
1931	464	247	160
1932	480	257	170
1933	525	228	157
1934	448	253	135
1935	504	244	169
1936	584	277	193
1937	548	254	148
1938	522	239	122

Deaths from Cancer are thus about  $1\frac{1}{2}$ — $1\frac{3}{4}$  times as many as those due to Tuberculosis for the treatment of which much greater provision is made by the County Council.

In 1938 the number of deaths from Cancer was 239 distributed among the Urban and Rural districts as follows:—

District.	No. of Deaths from Cancer.	Death rate per 1000 Population
<i>Urban—</i>		
Llanelly Borough	... 48	... 1.3
Carmarthen Borough	... 18	... 1.6
Kidwelly Borough	... 4	... 1.3
Burry Port Urban	... 5	... .92
Llandovery Borough	... 5	... 2.4
Llandilo Urban	... 2	... 1.5
Ammanford Urban	... 4	... .58
Cwmamman Urban	... 9	... 1.8
Newcastle Emlyn Urban	... 2	... 2.5
<i>Rural—</i>		
Llanelly Rural	... 58	... 1.6
Carmarthen Rural	... 37	... 1.3
Llandilo Rural	... 33	... 1.19
Newcastle Emlyn Rural	... 14	... 1.6
Total for Whole County	... 239	... 1.3

The age distribution of the deaths was as follows:—

Age Groups ...	0—15	15—25	25—35	35—45	45—55	55—65	65—
No. of Deaths ...	1	1	5	17	40	70	105

The total number of Cancer patients in a given year is usually estimated as in the region of 50 per cent. higher than the number of deaths. Thus in Carmarthenshire with roughly 250 Cancer deaths annually, the total number of Cancer patients in a given year is approximately about 375. This is a moderate estimate and on the low side.

The treatment of Cancer requires the use of operative measures, radium and deep X-Ray therapy. Some cases may require treatment by all three methods while in others, one or two of these methods may suffice. The facilities for treatment with radium and deep X-Ray therapy are inadequate, but steps are being taken to provide and develop a Radio therapy centre for South Wales.

## Midwifery and Maternity Services.

The County Council are responsible for the general supervision and regulation of the practice of midwives throughout the County.

*Notice of Intention to Practice.*—Every woman certified under the Midwives Acts is required to give notice in writing to the County Council of her intention to practice as a midwife, and to give a like notice in January of each year. The number of midwives who notified their intention to practice in the County during the year 1938 was 113, of whom 109 were qualified by examination and held the Central Midwives Board Certificate, while 4 were “bona fides” and allowed to practice by virtue of their having been in practice prior to 1902.

The localisation of the midwives during 1938 was as follows:—

District.	County Council Midwife.	District Nursing Association Midwife	Inde- pendent Midwife	Total.
<b>URBAN.</b>				
Llanelly ... ..	7	...	10	17
Carmarthen ... ..	2	...	1	3
Llandilo ... ..	...	2	...	2
Llandovery ... ..	...	1	2	3
Kidwelly ... ..	...	1	1	2
Newcastle Emlyn...	...	1	...	1
Ammanford ... ..	...	1	2	3
Burry Port ... ..	2	...	...	2
Cwmamman ... ..	...	2	...	2
Total ... ..	11	8	16	35
<b>RURAL.</b>				
Llanelly ... ..	2	12	19	33
Carmarthen ... ..	1	16	4	21
Llandilo ... ..	1	13	13	27
Newcastle Emlyn...	...	3	4	7
Rural ... ..	4	44	40	88
Urban ... ..	11	8	16	35
Whole County ... ..	15	52	56	113



*Attendance at Birth.*—Midwives may attend at birth either in the role of midwife or as a maternity nurse. A woman is acting as a maternity nurse when a doctor has been engaged to deliver the patient, and she has sent for him on the outset of labour, and he arrives before she leaves the house and continues to be in charge of and responsible for the case throughout the lying-in period.

The number of births registered in the County in 1938 was 2366. Of these 2201 were attended by midwives (1689 when acting as midwives, and 512 as maternity nurses).

The number of still births which occurred in the practice of midwives was 123.

*Notifications received from Midwives during 1938.*

1.—Sending for Medical Help	...	...	...	828
2.—Still Births	...	...	...	37
3.—Liability to be a source of infection	...	...	...	36
4.—Artificial Feeding	...	...	...	170
5.—Notification of Deaths	...	...	...	67
6.—Laying out of Dead Bodies	...	...	...	19

*Medical Aid (Sect. 14. Midwives Act, 1918 and Sect. 9(1) Midwives Act, 1936).*—Midwives are required to summon Medical Aid in an emergency as defined by the Rules of the Central Midwives Board, and the County Council are required to pay the fee and mileage of the doctor called in by the midwife in such an emergency and are empowered to recover the fee from the patient or person liable to maintain her unless satisfied that on account of poverty they cannot pay.

The number of claims received from doctors and sanctioned for services rendered in response to summonses for Medical Aid in 1938 was 387. The amounts paid to doctors for the service was £640. 6s. 6d.

The chief causes for which Medical Aid was summoned for the mother are as follows:—

Albuminuria	...	...	...	...	65
Eclampsia	...	...	...	...	8
Oedema	...	...	...	...	9
Antipartum Haemorrhage	...	...	...	...	39
Placenta Praevia	...	...	...	...	3

Abortion or Miscarriage	...	...	...	...	35
Difficult, Obstructed, Prolonged or Delayed Labour	...	...	...	...	310
Malpresentation	...	...	...	...	64
Retained or Adherent Placenta or Membranes	...	...	...	...	21
Premature Labour	...	...	...	...	8
Post Partum Haemorrhage	...	...	...	...	14
Torn perineum	...	...	...	...	172
Pyrexia	...	...	...	...	18
					<hr/> 766 <hr/>

The causes for which Medical Aid was summoned for the child was as follows:—

Baby cyanosed	...	...	...	...	...	2
Abscesson Spine	...	...	...	...	...	1
Threatened Bronchitis			...	...	...	1
Discharging Eyes	...	...	...	...	...	26
Deformity of Right Leg		...	...	...	...	1
Premature Child	...	...	...	...	...	2
Weakness and Jaundice		...	...	...	...	15
Phimosis	...	...	...	...	...	2
Still Birth	...	...	...	...	...	3
Injuries to Mastoid Muscles		...	...	...	...	1
Convulsions	...	...	...	...	...	3
Abnormality of Spine		...	...	...	...	1
Slight abnormality	...	...	...	...	...	1
Malformation	...	...	...	...	...	1
Hare lip and Cleft palate		...	...	...	...	1
Spina Bifida	...	...	...	...	...	1
						<hr/>
						62

*Grants in Aid of Training of Midwives.*—The County Council make a grant of £30 to the County Nursing Association in respect of each midwife placed in the County. The amount provided in the block grant for this service is £150 per annum.

*Inspection of Midwives.*—The Superintendent of midwives (Miss L. Newcomb) paid visits of inspection to midwives in order to examine the condition of their homes, equipment, the keeping of records, etc. Visits were also paid in respect of the following:

Special Visits of Enquiry.—Puerperal Fever and Puerperal Pyrexia, Ophthalmia Neonatorum, Pemphigus Neonatorum, Maternal Deaths, Whole-time Health Visitors, Infant Welfare Centres, Whole-time Midwives, District Nursing Association Midwives, Registered Nursing Home.

*Midwives Act, 1936.*—The Midwives Act, 1936, made it the duty of the Council to secure the whole-time employment of a sufficient number of certified midwives to attend to women in their homes as midwives or as maternity nurses during childbirth and for at least fourteen days afterwards. The Scheme of the Council which was put into operation on October 1st, 1937, catered for these requirements by providing the necessary staff of midwives as follows:—

- (1) By the employment of whole-time County Council midwives. For the Trimsaran, Burry Port, Llanelly and Carmarthen areas the Council have appointed a total of eleven midwives, distributed as follows:—

Llanelly	...	...	...	...	6
Carmarthen		...	...	...	2
Burry Port		...	...	...	2
Trimsaran		...	...	...	1

These Midwives are engaged for midwifery duties only and do not undertake any general sick nursing.

- (2) By the employment of District Nurse Midwives.—With the exception of the areas mentioned above, the requirements of the remaining areas of the County are met by utilising the services of the district nurse midwives employed by the District Nursing Association. Forty-nine district nurses employed by forty-four District Nursing Associations undertook midwifery duties for the County Council during 1938 in addition to their district nursing for the local Associations.
- (3) Relief Midwives.—In addition to the employment of whole-time and district nurse midwives the County Council Scheme provides for the employment of four whole-time relief midwives for general relief duties in the County. Owing to the difficulty of obtaining suitable candidates three relief midwives only were appointed.

Nursing Associations are also obliged to make arrangements for mutual assistance. Paragraphs 23 and 24 of the scheme cover the question of payment for the services of the relief midwife. The County Council midwives are paid directly by the County Council on a graduated scale. On the other hand the district nurse midwives are paid by the District Nursing Associations on the scale drawn up by the County Nursing Association and approved by the County Council. The District Nursing Associations are paid the following grants by the County Council for midwifery work:—

- (i.) A Basic Grant of £50 which is to be utilised mainly to efficient transport for the district nurse midwife. Efficient transport is essential, as it enables a District Nursing Association to extend its area; it allows the nurse to attend her patient with the least delay, to visit more cases, pay more frequent calls to each case and to show a greater turnover of work. It has also to be remembered that a large amount of midwifery work occurs between 12 p.m. and 6 a.m. when public transport is not available.
- (ii.) The Capitation Grant of 30/- per midwifery case attended by the district nurse. This 30/- is reduced to 20/- if the case is admitted to Hospital.
- (iii.) A subsidy Grant varying from £20 to £60 a year for District Nursing Associations who do not undertake health visiting and school nursing, and in whose areas the total school population is less than 300. The total school population in the area has been taken as a gauge of the total population and the available financial resources of the District Nursing Association. The less the school population, the less the total population, and therefore, the number of contributors, and the greater the need for the amount of the subsidy grant to enable the Association to meet its commitments.
- (iv.) A superannuation grant of £2. 10s. towards the annual premium of £10 which will enable a district nurse midwife to retire at 65 with a pension of at least £26 a year.

*Post Graduate Training.*—Arrangements have been made by the Council under their Midwives Act Scheme to provide post graduate training for midwives. Twelve midwives received such training during 1938.

*Maternal Mortality.*—The number of deaths that occurred in the Administrative County in 1938 as the result of childbirth was 10 or 4.004 per 1000 total births (live and still births) or 4.2 per 1000 live births. Maternal deaths are classified mainly:—

- (1) Those due to Puerperal Sepsis, i.e., various communicable septic infections liable to occur as a direct result of childbirth.
- (2) Those due to other Puerperal Causes.

The following table shows the deaths from these causes during 1938:—

District.	Puerperal Sepsis.	Other Puerperal Deaths.	Total.	Rate per 1000 live and still births.	Rate per 1000 live births.
Urban ...	...	5	5	4.8	5.2
Rural ...	1	4	5	3.4	3.5
Whole County...	1	9	10	4.004	4.2

The number of Maternal deaths and the puerperal death rate per 1000 total births for each of the last eight years is shown below :—

Year.	Deaths from						Total Deaths from Childbirth.	
	Puerperal Sepsis		Other Puerperal Deaths					
	No.	Rate	No.	Rate	No.	Rate		
1931 ... ..	8	2.7	16	5.5	24	8.27		
1932 ... ..	4	1.4	13	4.8	17	6.2		
1933 ... ..	7	2.5	7	2.5	14	5.0		
1934 ... ..	7	2.5	16	5.7	23	8.2		
1935 ... ..	4	1.5	14	5.2	18	6.7		
1936 ... ..	4	1.5	13	5.01	17	6.5		
1937 ... ..	5	1.9	16	6.04	21	7.9		
1938 ... ..	1	.40	9	3.6	10	4.004		

*Antenatal Services.*—Under the Rules of the Central Midwives Board every midwife must make notes of her Ante Natal Observations on an approved form. The midwife is required to send for Medical Aid during pregnancy when there is any abnormality or complication.

In Llanelly there is a Municipal Ante Natal Clinic under the personal charge of an Assistant Medical Officer; there is in addition in the same town a District Nursing Association Ante Natal Clinic staffed by Nurse Midwives. Some ante natal examination is carried out at a few of the Maternity and Child Welfare Centres in the rest of the County, but there has been no organised scheme of clinics for antenatal care. In 1938 the County Council decided to include in the estimates for 1939 an item for the provision of antenatal care for expectant mothers, but the matter was later deferred.

The suggested scheme envisaged :—

- (a) Antenatal examinations of the uninsured and necessitous expectant mother by the general practitioner.



- (b) Consultant clinics at which the County Consultant Obstetrician would examine cases referred by general practitioners who required further opinion or advice on their patients.

*Institutional Provision for Maternity Cases.*—Early in 1938 arrangements were made by the Council for the use of 16 beds at the Carmarthen Infirmary. Additional beds are available in the Medical block of the Infirmary for suspect or infected cases who require isolation, while cases of Puerperal Sepsis are sent to the County Isolation Hospital to be treated in the Cubicle block. Two beds at the Carmarthen Public Assistance Institution are also occasionally used for maternity cases.

The following is a report of the work carried out for the County Council at the Maternity Block of the Carmarthen Infirmary during 1938:—

154 County Council cases were admitted to the Infirmary in 1938. The number of cases admitted to the Maternity Wing proper was 118. There was one maternal death. There were 17 stillbirths, and there were eight neo-natal deaths. The number of cases admitted to the female surgical ward was 36 (this latter figure includes cases admitted directly from outside and also those transferred from the Maternity Wing). Of all these cases, the great majority (more than 98 per cent.) were admitted because of some abnormality; the minority (less than 2 per cent.) were admitted because of unsuitable home conditions.

The indications for admission in the abnormal cases included the following conditions: —

Eclampsia and Pre-Eclampsia, Abnormal Presentation, Contracted Pelvis, Failed Forceps, Ante-Partum and Post-Partum Haemorrhage, Hydatidiform Mole, Retained Placenta, Multiple Pregnancy, Monsters, and Uterine Inertia.

The following associated diseases of pregnancy were admitted:—

Appendicitis, Pyelitis, Diabetes, Pneumonia with Empyema, Dwarfism with Spinal Deformity, and Meningitis.

You will observe that the above are all cases where the treatment of election takes its first step in the hospitalisation of the patient.

The one maternal death makes a percentage mortality of less than 1 per cent. There was one death due to an associated disease, viz., Meningitis.

Eclampsia is a condition where intensive ante-natal care and supervision can make it no more than a clinical curiosity.

The puerperal morbidity rate for the County cases in the Carmarthenshire Infirmary, like the mortality rate, has been very low. It is just over 2 per cent. The still-birth rate is average. The neonatal death-rate is entirely due to congenital abnormalities and prematurity.

*Consultant.*—The Council's Consultant Obstetrician is Dr. J. Lloyd Davies, of Swansea. His services are available for general practitioners in cases of Puerperal Fever and Pyrexia, and of any abnormality, subject to the approval of the County Medical Officer of Health. During 1938 the services of Dr. Lloyd Davies were sanctioned as follows:—Out patient consultations 12, Hospital consultations 20; Operations performed 8.

*Supply of Milk to Expectant and Nursing Mothers.*—Free supply of milk was granted in 1938 at the cost of the County Council, in necessitous cases, to 253 expectant and nursing mothers. The total amount of free milk granted to expectant and nursing mothers and children under five years of age in 1938 was 8984 gallons and 1031 lbs. of dried milk. Dried milk and other preparations were also given free or at cost price to infants attending the Infant Welfare Centres; in cases of necessity the cost of the dried milk is borne by the County Council.

This service was also extended in 1938.

*Other Services.*—No arrangements exist for the provision of home helps and sterilised maternity outfits in necessitous cases. Arrangements were made in 1938 for the supply of sterilised maternity outfits. No dental services are provided by the Council for expectant mothers, or the pre school child.

The inadequate number of School Dental Officers in the County precludes the use of their services for Maternity and Child Welfare cases.

*Nursing Homes Registration (Public Health Act, 1936. Section 187—195).*—One Nursing Home alone, the Goring Road Nursing Home, Llanelly, is registered in this County. This is periodically inspected and the byelaws found to be duly observed.

## CHILD WELFARE.

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### *Notification of Births.*

These Acts require the notification of every birth to the Medical Officer of Health within 36 hours of its occurrence by the father, doctor, midwife, or any person in attendance on the mother at the time of, or six hours after birth. This notification does not relieve the parents of the necessity of registering the birth with the Registrar. Failure to notify the birth to the Medical Officer of Health involves liability to penalty. On receipt of these notifications the County Medical Officer of Health arranges for a Health Visitor to visit the births notified in her area.

During 1938 notifications of births were received as follows from:—

	<i>Live Births.</i>	<i>Still Births.</i>	<i>Total.</i>
Midwives ... ..	2236	103	2339
Doctors, Parents or Others	40	2	42

The total number of Births and Still Births registered during the year was 2497 (live births, 2366; still births, 131), and thus 30 live births and 26 still births were not notified in accordance with the provisions of the Acts.

### *Health Visitors—Home Visiting.*

The duties of health visitors in connection with infant welfare include the visiting of births notified in the area, advising the mothers as to the care and rearing of their infants and as to attendance at the Infant Welfare Centres. They also follow up visits to the Centre in order to see that the doctor's advice is being carried out and also act as Infant Protection Visitors. The health visitor is required to visit the homes once a month for the first year of the infants life, four times a year in the second year, and at least twice yearly during the third, fourth, and fifth years, when the child automatically comes under the supervision of the School Medical Service.

The Health Visiting Staff consists of 7 whole-time Nurses and 37 part-time Nurses who carry out health visiting and school medical service duties in addition to their primary duty of District Nursing. The part-time Nurses are employed by the County Nursing Association, and the County Council pay a grant of £80 per annum for the services of each part-time Nurse engaged in health visiting and school nursing. The nature and amount of work carried out by the health visitors in 1938 is summarised in the following Tables.

# MATERNITY AND CHILD WELFARE WORK FOR THE YEAR 1938.

The table hereunder shews the work done by the respective Health Visitors.

Name of District.	Visits to Infants under 1 year.		Total visits. Children 1-5.	Premature Births.	Illegitimate Births.	Artificial Feeding.	Still Births.	No. died shortly after Birth.	Below normal weight.	Home Conditions.					
	First Visits	Total Visits								Bad Ventilation.	Bad Light.	Bad repair.	Dampness.	Uncleanness.	
Whole Time Nurses. Located at:—															
Amman Valley	196	796	678	2	1	94	13	15	31	..	1	1	4	1	
* Ammanford	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Trimsaran	63	1125	2264	...	3	28	3	2	20	..	..	9	4	3	
Burry Port	124	648	794	...	2	51	3	4	19	..	...	1	...	...	
Llanelly Rural	94	193	84	...	...	62	9	3	13	..	..	8	...	3	
St. Clears	89	463	811	1	3	30	5	2	5	..	..	3	21	2	
Carmarthen Rural	49	194	644	...	3	13	1	3	3	..	..	1	1	...	
Total	615	3419	5275	3	12	278	34	29	91	..	1	23	30	9	

\*Nurse off duty. Health Visiting partly undertaken by Amman Valley Nurse.

MATERNITY AND CHILD WELFARE WORK FOR THE YEAR 1938.—(Continued).  
The table hereunder shows the work done by the respective Health Visitors.

Name of Districts.		Visits to Infants under 1.		Total visits to children 1—5	Premature Births.	Illegitimate Births.	Artificial Feeding.	Still Births.	No. died shortly after birth.	Below normal weight.	Home Conditions.					Uncleanliness.	
Part Time Nurses.		First Visits	Total Visits								Bad Ventilation	Bad Light.	Bad Repair.	Dampness.			
District Nursing Association Nurses.		located at:—															
Drefach	...	12	153	213	—	—	9	1	—	5	—	—	—	—	—	—	—
Llanddarog	...	29	219	375	—	—	15	1	2	4	—	—	—	—	—	—	—
Llangendornno	...	22	406	454	1	1	9	—	—	4	—	—	—	—	—	—	—
Abergwili	...	23	288	286	—	—	4	1	1	1	—	—	—	1	—	—	—
Llanegwad	...	13	111	173	1	—	4	1	—	4	—	—	—	—	—	—	—
Llangathen	...	10	132	113	—	—	3	—	—	3	—	—	—	—	—	—	—
Llanfihangel-Aberbythich	...	22	500	756	1	1	4	2	2	3	—	—	—	1	—	—	—
Llandilo	...	36	409	467	4	—	9	—	—	9	—	—	—	3	—	—	—
Llansawel	...	17	128	225	—	—	—	—	—	—	—	—	—	—	—	—	—
Talley	...	8	145	230	—	—	—	—	—	—	—	—	—	—	—	—	—
Llanfynydd	...	13	328	386	—	—	—	—	—	—	—	—	—	—	—	—	—
Llandovery	...	31	525	546	1	4	2	1	—	7	—	—	—	—	—	—	—
Gilycwm	...	6	134	241	—	—	1	1	—	—	—	—	—	—	—	—	—
Caio	...	19	89	109	3	—	4	—	—	2	—	—	—	—	—	—	—
Llangadock	...	31	225	303	—	—	15	1	3	8	—	—	—	1	—	—	—
Llansadwrn, etc.	...	17	218	245	1	—	2	1	—	4	—	—	—	—	—	—	—
Nowcastle Emllyn	...	16	235	139	—	—	5	3	—	3	—	—	—	—	—	—	—
Henllan	...	10	279	271	—	—	2	—	—	2	—	—	—	—	—	—	—
Ferryside	...	30	537	486	2	1	—	3	5	5	—	—	—	—	—	—	—
Llanstephan	...	23	568	410	1	—	8	—	—	5	—	—	—	—	—	—	—
Whitland	...	20	690	709	1	1	12	2	3	4	—	—	—	—	—	—	—
Llandilo North Ward	...	18	354	211	1	1	2	1	—	1	—	—	—	—	—	—	—
Llangunmor	...	11	405	362	1	—	1	—	—	3	—	—	—	—	—	—	—
Dyffryn Taf	...	16	515	470	—	—	1	1	—	3	—	—	—	—	—	—	—
Folinfel	...	35	493	671	2	5	14	—	—	9	—	—	—	2	—	—	—
Pontyates	...	51	1798	1533	1	1	11	1	—	14	—	—	—	1	—	—	—
Cefneithin	...	54	202	419	1	—	29	2	—	7	—	—	—	—	—	—	—
Ammanford (Saron)	...	31	252	185	—	—	13	2	—	3	—	—	—	—	—	—	—
Tumblo	...	49	402	468	3	1	7	4	4	7	—	—	—	—	—	—	—
Llanedy	...	23	276	92	—	—	11	2	—	3	—	—	—	—	—	—	—
Dafen	...	56	332	412	1	1	34	1	—	10	—	—	—	3	—	—	—
Penender	...	15	276	515	—	—	9	—	—	1	—	—	—	—	—	—	—
Llanbythor	...	39	342	315	—	—	16	1	3	12	—	—	—	1	—	—	—
Kidwelly	...	20	549	462	1	—	7	1	2	4	—	—	—	1	—	—	—
Pontyberem	...	30	846	904	1	—	14	1	—	4	—	—	—	4	—	—	—
Penggroes	...	41	124	292	1	—	17	1	—	6	—	—	—	3	—	—	—
Llanddebie	...	17	385	368	—	—	2	2	—	3	—	—	—	—	—	—	—
Total				923	13870	14816	29	23	296	38	43	166	33	12	4	—	—



*Child Welfare Centres.*

The main functions of the centre are educational and preventive, and to this end the mother is instructed in matters relating to the child's rearing, management, feeding and clothing. Any infant or child who requires treatment for any defect is referred to the family doctor. The treatment facilities already available for school children under the School Medical Service should also be available for the pre-school child.

There are twenty-one Child Welfare Centres in the County, viz., at Ammanford, Brynamman, Burry Port, Cwmamman, Llandovery, Llwynhendy, Pwll, Furnace, Gorslas, Tumble, Pontyberem, Ystradowen, Penygroes, Llandilo, Ffairfach, Trimsaran, Kidwelly, Whitland, Llanstephan, Llangennech and Newcastle Emlyn. There are also two contributory centres supported by Joint Authorities, viz., one at Pontardulais and the other at Henllan. A general practitioner in the area acts as Medical Officer at each centre.

## ATTENDANCES AT THE INFANT WELFARE CENTRES.

Name of Centre.				Average Attendance per session.		No. who attended for the first time.	
				Expectant Mothers	Children	Expectant Mothers	Children
Ammanford	...	...	...	...	43.7	...	136
Brynamman	...	...	...	...	28.6	...	18
Burry Port	...	...	...	...	40.4	...	85
Cwmamman	...	...	...	...	41.3	...	37
Llandovery	...	...	...	.31	16.2	8	13
Llwynhendy	...	...	...	...	30.9	...	77
Pwll	...	...	...	...	34.1	...	40
Furnace	...	...	...	...	42.3	...	61
Gorslas	...	...	...	.19	38.5	5	97
Tumble	...	...	...	...	26.6	...	63
Pontyberem	...	...	...	...	25.7	...	85
Ystradowen	...	...	...	...	34.0	...	10
Penygroes	...	...	...	...	38.5	...	54
Llandilo	...	...	...	...	36.2	...	34
Ffairfach	...	...	...	.31	23.5	4	26
Trimsaran	...	...	...	...	15.7	...	29
Kidwelly	...	...	...	...	32.1	...	23
Whitland	...	...	...	...	10.6	...	21
Llanstephan	...	...	...	...	16.5	...	20
Llangennech	...	...	...	...	20.2	...	24
Newcastle Emlyn	...	...	...	...	16.4	...	63
Pontardulais (Contributory)	...	...	...	...	...	...	15
Henllan (Contributory)	...	...	...	.38	37.4	10	11



*Supply of Milk to Children under five.*

Free supply of milk at the cost of the County Council was given in necessitous cases to 430 children under five years during the year. Dried milk and other preparations were also given free or at cost price to 44 infants attending the Welfare Centres; in cases of necessity the cost of the dried milk is borne by the County Council.

*Orthopaedic Treatment.*—On the 31st December, 1938, there were 176 County Maternity and Child Welfare cases being attended to under the Orthopaedic Scheme which is administered by the Education Committee, viz., 13 of paralysis, 97 of congenital deformities, 47 rickets, 1 infective conditions (non-tuberculous), and 18 other. 1600 attendances were made at the Orthopaedic Clinics by the cases of the County Maternity and Child Welfare Committee during the year. 1286 manipulations were undertaken by the Orthopaedic Sisters, 95 plasters were applied, and 41 plasters were reinforced. 7 individual children received remedial exercises, and 1 received massage. 107 home visits were made by the Sisters in connection with the cases. 96 cases were seen by the visiting Orthopaedic Surgeon, and 1 was recommended hospital treatment.

*Other Services for Children under 5 Years.*—During the year, in addition to orthopaedic treatment, schemes for the removal of tonsils and adenoids, ophthalmic examinations, treatment of all ear, nose and throat defects, cleft palate and harelip became available for pre-school children.

Nine children under 5 years of age were examined at the Eye Clinics and 4 children under 5 years of age were treated for tonsils and adenoids.

*Ophthalmia Neonatorum.*—This is defined as a purulent discharge from the eyes of an infant occurring within twenty-one days from the date of its birth. Under the Ophthalmia Neonatorum Regulations, there were 13 cases notified during the year in the Administrative County. Five of these cases were in Llanelly Borough which is a Welfare Authority. Two of the eight cases in the rest of the County were admitted into the County Isolation Hospital. The disease is one of the chief causes of blindness. Midwives are provided with Argyrol 10% for use as a prophylactic against the disease. A report is received on each case of "discharging eyes."

*Infant Mortality Rate.*—The number of deaths of infants under one year in 1938 was 123 (53 Urban, 70 Rural), giving an Infant Mortality rate of 51.9 per 1000 live births (55.8 Urban, 49.4 Rural), as compared with 55.5 for 1937, and 64.6 for 1936. The rate for England and Wales for 1938 was 53.0 per 1000 live births. The chief causes of these deaths of infants under one year old in this County were:—

...		1938	1937
Respiratory Diseases	...	17	21
Congenital Debility			
Premature birth, Malformation, etc	...	74	73
Diarrhoea and Digestive troubles	...	14	9
Violence	...	—	3
Other causes	...	18	32

Of the 123 deaths of infants under one year old, 9 were deaths of illegitimate children. The infant mortality rate among legitimate children was 49.8 as compared with 112.5 among illegitimate children.

The following table gives particulars of the numbers of infant deaths with the rates per 1000 live births for each district in the administrative County:—

District.	No. of Births.	No. of Deaths under 1 year.	Rate per 1000 live Births.
<b>URBAN.</b>			
Llanelly ... ..	494	28	56.6
Carmarthen ... ..	141	5	35.4
Llandilo ... ..	28	2	71.4
Llandovery ... ..	25	...	...
Kidwelly ... ..	34	2	58.8
Newcastle Emlyn ...	8	1	12.5
Ammanford ... ..	88	8	90.9
Burry Port ... ..	79	1	12.6
Cwmaman ... ..	52	6	115.4
	949	53	55.8
<b>RURAL.</b>			
Llanelly ... ..	482	22	45.6
Carmarthen ... ..	435	25	57.4
Llandilo-Fawr ... ..	394	14	35.5
Newcastle Emlyn ...	106	9	84.9
	1417	70	49.4
Urban Districts ...	949	53	55.8
Rural Districts ...	1417	70	49.4
Whole County ... ..	2366	123	51.9
England and Wales ...			53.0

*Table of Comparison for the Whole County with previous years.*

1932	1933	1934	1935	1936	1937	1938
73.01	81.3	64.1	68.3	64.6	55.5	51.9

*Still Births.*

A still birth is defined as the birth of a child after the twenty-eighth week of pregnancy, which, after complete expulsion did not breathe or show any signs of life. There were 131 still births (73 males, 59 females) registered in the County, giving a rate of 60.1 per 1,000 total births.

*Infant Life Protection.*

- (a) Number of persons receiving children for reward on the Register at the end of the year ... 5
- (b) Number of children on the Register :
- (i) At the end of the year ... 5
  - (ii) Who died during the year ... Nil
  - (iii) On whom inquests were held during the year ... Nil
- (c) Number of Infant Protection Visitors :—
- (i) Health Visitors ... 7
  - (ii) Female, other than Health Visitors ... Nil
  - (iii) Males ... 1
- (d) Number of persons (in addition to or in lieu of Visitors under (c) above) or Societies authorized to visit under the provisio to Section 209(2) of the Public Health (London) Act, 1936 ... Nil
- (e) Proceedings taken during the year :
- No. of Cases ... Nil
  - Act and Section under which proceedings were taken ... Nil
- (f) Number of cases in which the Local Authority has given a sanction during the year :
- (i) Under (a) of Section 210 of the Public Health Act, 1936 ... Nil
  - (ii) Under (b) of Section 210 of the Public Health Act, 1936 ... Nil
  - (iii) Under (c) of Section 210 of the Public Health Act, 1936 ... Nil

(g) Number of orders obtained during the year under Section 212 of the Public Health Act, 1936:—

(i) From Court of Summary Jurisdiction	...	...	Nil
(ii) From a single Justice	...	...	Nil

*National Society for the Prevention of Cruelty to Children.*

The services of Mr. H. James, the local Inspector of the Society, have been frequently called upon, and he has become an almost essential part of the public health services.

His services are invaluable and are greatly appreciated. Particulars of the work carried out by Mr. James will be found in the Annual Report of the School Medical Officer.

**BLIND PERSON'S ACTS, 1920 and 1938.**

Examinations under this Act are carried out as occasion arises, by two part-time Ophthalmic Surgeons (Dr. Roy Thomas, and Dr. J. J. Healy), at Centres in Llanelly, Lampeter, Carmarthen and Ammanford. The Examinations are carried out as far as possible on the days the School Eye Clinics are held. Where a presumably blind person is unable to attend the centres provision is made for the Ophthalmic Surgeon to visit the home. The payment of travelling expenses to the centres is defrayed by the Carmarthenshire Blind Society in necessitous cases.

*Registration.*—No name is entered on the Blind Register until the person is certified by the Ophthalmic Surgeons to be blind within the meaning of the Act.

The number of blind persons on the Register in 1938 was 415.

Details of the age periods of the above are shown in Table I.:

TABLE I.—Age periods of Persons on Blind Register.

0-1	1-5	5-16	16-21	21-40	40-50	50-65	65-70	70 +	Unknown	Total
	1	5	5	25	30	101	40	205	3	415

TABLE II.—Ages at which blindness occurred.

0-1	1-5	5-10	10-20	20-30	30-40	40-50	50-60	60-70	70 +	Unknown
25	3	5	14	23	28	34	66	99	76	42

TABLE III.—Children of School Age—5-16.

Normal.			Mentally Defective.			Physically Defective.			Total.
In School for Blind	Other Schools	Not at School	In School for Blind	Other Schools	Not at School.	In School for Blind	Other Schools	Not at School.	
2	...	...	...	...	3	...	...	...	5

TABLE IV.—Physically and Mentally Defective—(All ages).

(a) Mentally Defective	(b) Physically Defective	(c) Deaf	(d) Deaf mute	(e) Combina- tion of (a) & (b)	(f) Combina- tion of (a) & (c)	(g) Combina- tion of (b) & (e)	(h) Combina- tion of (a) (b) & (c)	Total
5	16	10	2	3	...	1	1	38

TABLE V.—Unemployable Blind Persons resident in:—

(a)		(b)		(c)
Homes for the Blind.		Mental Hospital.		Public Assistance Institutions.
...		2		2

TABLE VI.—Training and Employment.—Age 16 and upwards.

Employed.			Undergoing Training			No Training but Unemployable (i)	Total (k)	Unemployable over 70 included in (j) & (k) (l)
By Blind Organizations	All others not in (a) or (b) (c)	Total employed (d)	Industrial (e)	Secondary (f)	Professional or University (g)			
Work-shops (a)	Home Workers (b)							
1	7	10	1	2	...	1	387	205
		18					409	

TABLE VII.—New Cases registered during year ended 31/3/39.

0-1	1-5	5-16	16-21	21-40	40-50	50-65	65-70	70+	Unknown	Total
...	...	...	...	1	1	6	6	25	1	40

TABLE VIII.—New Cases.—Age at which blindness occurred.

0-1	1-5	5-10	10-20	20-30	30-40	40-50	50-60	60-70	70+	Unknown
...	...	...	...	...	1	3	1	12	20	3



*Number of persons examined by Ophthalmic Surgeons during the year:—*

Males—25; Females—47. Total—72.

*Number of persons found on examination NOT to be blind within the meaning of the Act:—*

Males—9; Females—16. Total—25.

*Diagnosis by Ophthalmic Surgeon:—*

		Males.	Females.	Total.
Optic Atrophy	...	7	6	13
Vascular Disease of the Retina	...	—	1	1
Iridocyclitis	...	1	1	2
Corneal Scars	...	—	1	1
Retinitis	...	1	3	4
Cataracts	...	5	11	16
High Myopia	...	—	1	1
Optic Neuritis	...	—	1	1
Opacities	...	—	1	1
Conical Cornea	...	—	1	1
Endarteritis	...	1	—	1
Glaucoma	...	1	—	1
Inerstitial Keratitis	...	—	1	1
Entropion Conjunctivitis	...	—	1	1
Photophobia and Neuritis	...	—	1	1
Cerebral trouble	...	—	1	1
Total	...	16	31	47

## MENTAL DEFECTIVES.

The two main administrative groups of Mental Defectives are .—

(1) Educable mentally defective children between the ages of seven and sixteen who are capable of instruction in a Special School by special educational methods. These cases are the responsibility of the Education Committee, acting under the Education Act, 1921.

(2) Notified cases which comprise ineducable mental defectives (idiots, imbeciles, low grade feeble-minded), moral defectives and cases notified by the Education Authority as being incapable of

deriving further benefit from education at a Special School, or as being incapable of being educated without detriment to other children, or in whose cases special circumstances exist that make it desirable that the defective should be under supervision, or guardianship, or sent to an institution. These notified cases, when they are proved "subject to be dealt with," are the responsibility of the County Council acting through the Mental Deficiency Committee, and they are dealt with under the Mental Deficiency Acts, 1913 and 1927. These Acts impose on the County the following duties:—

- (a) To ascertain what persons in their area are defectives subject to be dealt with under the Act.
- (b) To provide suitable supervision for such defectives, or if such supervision is insufficient, to place them in an institution or under guardianship.
- (c) To provide suitable accommodation in institutions for those defectives who require institutional care, and to maintain them in such institutions.
- (d) To make provision for the guardianship of mental defectives when placed under guardianship by Orders under the Acts.
- (e) To provide suitable training or occupation for defectives placed under supervision, guardianship, or in an institution.

There is no system of supervision or guardianship for Mental Defectives in this County. Institutional provision for female defectives is provided at Pantglas Hall, Llanfynydd. There is no Mental Deficiency Institution for males.

### **Pantglas Hall.**

This is a certified institution for female mental defectives. The number of female mental defectives on the Register on the 31st March, 1939, was 114, of whom 51 were notified by the Carmarthenshire Local Authority, 33 by Pembrokeshire, 14 by Breconshire, 7 by Cardiganshire, and 9 by Radnorshire. The Mental classification of the 114 defectives in the Institution was as follows:—66 were feeble-minded (28 very low grade), 20 were imbeciles and idiots. Of these 19 suffered from epilepsy and 8 from crippling conditions.

The number of admissions during the year ending 31st March, 1939, was 4, of whom 2 were notified by the Carmarthenshire Local Authority.

# Inspection and Supervision of Food.

## MILK CONTROL.

**Milk and Dairies (Consolidation) Act, 1915.**—Section 4 of the Milk and Dairies (Consolidation) Act, 1915, provides that if the Medical Officer of Health of any Local Authority has reason to suspect that tuberculosis is caused by the consumption of milk produced in the County he shall endeavour to ascertain the source of supply and must notify the County Medical Officer of Health.

It is then the duty of the County Medical Officer of Health to arrange for a veterinary examination of the cattle on the farm concerned.

The cows in the herd are examined clinically and samples of milk from the individual cows are taken if induration of the udder or any symptoms suggestive of tuberculosis are present; a bulk sample is taken of the milk of the remaining cows or these are divided into groups and group samples taken. The samples are sent to the Beck Laboratory, Swansea, for microscopic examination and guinea pig inoculation.

## TUBERCULOSIS ORDERS, 1925 and 1938.

The number of animals slaughtered under the Tuberculosis Order, 1925 during the past four years is as follows:

1935	...	...	...	...	40
1936	...	...	...	...	48
1937	...	...	...	...	50
1938	First Quarter	...	...	...	11
	April to December	...	...	...	43
(By the Ministry of Agriculture & Fisheries).					

## Tuberculosis (Attested Herds) Scheme.

This scheme is designed to encourage the establishment in Egnland and Wales of herds of cattle officially certified as free from tuberculosis. Herds which are so certified are known as Attested Herds and are entered in a Register of Attested Herds which is kept and published from time to time by the Ministry of Agriculture and Fisheries.

Before a herd can be entered in the Register of Attested Herds all the animals comprising it must have passed an official tuberculin test made by a Veterinary Inspector of the Ministry.

It is pleasing to note that Carmarthenshire leads Great Britain and Wales in this Scheme. At the end of 1938 there were 1243 herds in the County on the Register kept by the Ministry. The latest figures for Carmarthenshire are greatly in excess of this.

### **Milk (Special Designations) Order, 1936.**

This Order came into operation on the 1st June, 1936, and prescribed the following special designations for milk, viz.:

(1) **Tuberculin Tested Milk.**—This is milk from cows which have passed a veterinary examination and a tuberculin test. Every animal in a tuberculin tested herd must pass a tuberculin test within one month before the date of application for a licence, and thereafter at intervals of not less than two and not more than six months unless it is on the Register of Attested Herds, when it must comply with the relevant conditions prescribed by the Ministry of Agriculture and Fisheries. An animal born and bred in the herd must be submitted to the tuberculin test before it reaches the age of twelve months. All reactors must be immediately removed from the herd. Before any animal is added to the herd unless such animal is taken directly from an Attested or a Tuberculin Tested herd, it must pass a tuberculin test within fourteen days before being added to the herd, and be submitted to a further tuberculin test two months after the date of addition, and during these two months must be segregated from the rest of the herd.

In addition, every animal must pass a veterinary examination within one month before the date of application for the licence, and thereafter at intervals of not more than six months.

The herd must be kept completely isolated from all other cattle. The milk is bottled on the farm or elsewhere, and it may be raw or pasturised. Tuberculin Tested milk must contain no coliform bacilli in 1/100 ml. and must satisfy a prescribed methylene blue reduction test. It must be delivered to the Consumer in bottles filled at the farm or at some other licensed establishment: if not bottled at the farm it must be sent in unventilated sealed churns. The containers, whether bottles or churns, must be tightly closed and suitably sealed and labelled.

Since the 1st June, 1936, all new licences for the production of Tuberculin Tested milk have been issued by the County Council.

(2) **Accredited Milk** is raw milk from cows which must pass a veterinary examination within one month before the date of the application for a licence, and thereafter at intervals of three months. Herds producing Accredited Milk are not submitted to Tuberculin Tests, but it is not permissible to add to the herd an animal which to the knowledge of the producer was tested with tuberculin and

reacted to the test. Any cow found to be showing evidence of any disease which is likely to affect the milk injuriously must immediately be segregated from the rest of the herd or removed from the herd, and must be certified by a Veterinary Surgeon as having recovered before it can be reintroduced. Cows in milk belonging to the herd must be kept separate from all other cows in milk. Conditions as to bottling and delivery of the milk are similar in trend to those which pertain for Tuberculin Tested Milk. Accredited milk must contain no coliform bacilli in 1/100th ml., and must satisfy a prescribed methylene blue reduction test.

Licences for Accredited Milk are also granted by the County Council for farms at which the milk is produced.

(3) Pasteurised Milk is milk which has been retained at a temperature of 145°—150°F. for at least thirty minutes, and does not contain more than 100,000 bacteria per ml. Conditions are also imposed with regard to thermometers and temperature records during pasteurisation. The Licensing Authority for Pasturised Milk is the Local Sanitary Authority.

*Administration.*—Milk sampling and the examination of cowsheds and methods of milk production, prior to the granting of a licence for producing designated milk, are carried out by the staff of the Pibwrlwyd Farm Institute. The County Medical Officer of Health approves or disapproves the granting of a licence on the result of these examinations, together with the results of the veterinary examination by a Veterinary Surgeon.

Post license samples of milk are taken by the Chief Inspector of Weights and Measures, and are sent to the University College of Wales, Aberystwyth, for examination.

The following table gives the number of licences issued under the Milk (Special Designations) Order, 1936, up to the 31st December, 1938:—

Number of "Accredited Milk" Licence holders in the County on the 31st December, 1938 ... ..	758
Number of NEW "Accredited Milk Licences" issued during 1938 ... ..	305
Number of "Tuberculin Tested Milk" Licence holders in the County on the 31st December, 1938 ... ..	178
Number of NEW "Tuberculin Tested Milk" Licences issued during 1938 ... ..	115



For purposes of comparison the following summary is given showing the number of licences issued up to the end of each of the last six years:—

	1933	1934	1935	1936	1937	1938
Accredited Licences	1	1	154	416	607	758
Tuberculin Tested do.	12	16	50	56	63	178

*Sampling of Designated Milk.*—The aim is to take four samples yearly of each designated milk. If three consecutive samples prove satisfactory during the year, the fourth sample is not taken. If the results of consecutive samples are unsatisfactory a “run of samples” is then taken. During 1938 the number of samples of milk taken by the Chief Inspector of Weights and Measures under the Milk (Special Designations) Order, 1936, was 3253. Of these 2015 were satisfactory and 1238 unsatisfactory. 310 samples were also examined for *Mycobacterium tuberculosis* of which 4 gave positive results.

*Revocation of Licences.*—During 1938 the licences of seventeen Accredited producers, and three Tuberculin Tested producers were revoked, on the advice of the County Medical Officer of Health owing to consistently unsatisfactory samples. Once a licence is revoked no re-application for a licence is considered until a period of six months has elapsed, and the licence is only then re-issued if the samples of the milk taken at monthly intervals indicate a consistent standard of cleanliness.

**Milk in School Scheme.**—318 samples were taken by the Chief Inspector of Weights and Measures of milk supplied to schools. Of these 179 were found to be satisfactory and 139 unsatisfactory. 71 samples were also submitted for *Mycobacterium tuberculosis* of which 4 gave positive results.

During 1938, 3609 children were provided by the Education Committee with free milk at the Elementary schools, while 6231 were providing or paying for their own supplies.

**Milk and Dairies Order, 1923.**—The number of inspections of cowsheds and dairies carried out by the Local Sanitary Authorities in the County in 1938 was 419, viz., Carmarthen Borough 86, Ammanford Urban 41, Llandilo Urban 14, Llanelly Rural 278. In addition the Medical Officers of Health of Llanelly Borough, Carmarthen Rural, Llandilo Rural, Burry Port Urban, Kidwelly Borough and Llandovery Borough state that all cowsheds and dairies were inspected, but do not state the number of inspections.

The number of milk samples taken by the Local Sanitary Authorities in 1938, was 304.

## **FOOD AND DRUGS.**

### **Borough of Carmarthen.**

In the Borough of Carmarthen these Acts are administered by the Chief Constable.

Nineteen samples of food were taken for analysis by the Public Analyst as follows:—

Fresh morning milk	...	...	...	7
Fresh evening milk	...	...	...	1
Appeal to cow samples	...	...	...	2

and one each of Empire butter, Blended butter, Welsh butter, Cooked peas, Chicken, Ham and Tongue Paste, Ground Ginger.

One sample of milk was certified to contain 3% deficient in fat. No prosecution was advised because the acidity of the sample was 4.2 which rendered the freezing point unobtainable. All the remaining samples were certified genuine. The appeal to cow sample from a corresponding milking was certified genuine. No proceedings were taken as the deficiency was so small that it could easily be accounted for by variation in the milk. All the remaining samples were found to be genuine.

### **County of Carmarthen.**

Summary of the work done under the direction of the Chief Inspector of Weights and Measures during the year 1938.

*Food and Drugs.*—496 samples were taken, and submitted for analysis by the Public Analyst of which 348 were milk; 109 were of other articles of food and 39 were drugs. Of the 348 samples of milk 32 were found below the standard for fat or non-fatty solids. Legal proceedings were taken against 3 vendors and fines amounting to £22. 2s. 6d. were imposed.

A sample of Hake proved to be "Ling"; proceedings were taken and a fine of £1 was imposed together with 17s. 6d. costs. The remaining samples were certified to be genuine. All samples of foods were found to comply with the Public Health (Preservatives in Food) Regulations.

*Milk in Schools Scheme.*—318 samples were taken of milk supplied to schools under the above scheme. These samples were submitted for Bacteriological Examination at the University Col-



lege of Wales, Aberystwyth. 179 samples were found to be satisfactory and 139 unsatisfactory. 71 samples were also submitted for examination for *Mycobacterium tuberculosis*, of which 4 gave Positive Results.

*Milk (Special Designations) Order.*—3253 samples of designated milks were taken under the above Order, and submitted for Bacteriological Examination at the University College of Wales, Aberystwyth, of which 2015 were found satisfactory, and 1238 unsatisfactory. 310 samples were also examined for *Mycobacterium tuberculosis*; only 3 gave Positive Results.

A number of Licences were revoked during the year on the advice of the County Medical Officer of Health.

Proceedings were taken against 2 milk producers for using a special designation in respect to their milk without there being in force a milk licence authorising the use of a special designation in connection with such milk. Fines amounting to £4 were imposed.

### COUNTY ANALYST.

Clarence A. Seyler, B.Sc., F.I.C., The Technical College, Swansea.

*Summary of Work done during the year 1938.*

#### FOOD AND DRUGS.

Food and Drugs—496 samples.

Of 348 samples of milk 298 were fully equal to the required minimum and 17 were slightly below the limit for fat and non-fatty solids (Fat 2.88 per cent. to 2.92 per cent. and Non-fatty solids 8.20 per cent. to 8.46 per cent.)

One sample was low in non-fatty solids (7.90 per cent.) but the ash and freezing point showed it to be genuine.

One sample was abnormally rich in fat containing 15.80 per cent.

The freezing point method applied to samples only slightly below the limit for non-fatty solids show that these were in most cases genuine and in samples Nos. 367, 395 and 400 the freezing point was on the limit adopted for genuine milk.

Twenty-five samples were deficient in fat.

Three "appeal to cow" samples were deficient in fat. Five samples contained added water. No boric acid were present in any of the samples.

The samples of Drugs were satisfactory and contained no harmful ingredients.

Of the 496 samples 30 (excluding 3 "Appeal to Cow" samples) were condemned being 6.05 per cent. of the whole.

## SANITARY CIRCUMSTANCES OF THE AREA.

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### Water Supplies.

Water supplies throughout the County were fully described in my Annual Report for 1937, and the following brief extracts from the Reports of the District Medical Officers of Health will supplement those quoted in my previous report.

*Llanelly Borough.*—The average daily consumption of filtered water for domestic purposes for the year was 33.56 gallons per head per day, and for trade purposes 44.58 gallons per head per day. There are two main sources of supply, viz.:—

(1) The Lliedi watershed, water from which is stored in two reservoirs, viz., (a) the Cwmlliedi reservoir which has a capacity of 220 million gallons and is used solely for trade purposes; and (b) the Upper Lliedi reservoir with a capacity of 200 million gallons, which is subjected to slow sand filtration before distribution for domestic purposes;

(2) The Gwendraeth Fach Watershed—water is taken from the Gwendraeth Fach River at the Old Forge, Kidwelly and gravitated to the pumping station at the site of the Munition Works, Pembrey from which it is pumped into the Lliedi Reservoir. 117,875,000 gallons of water were pumped in 1938.

The Town Council in 1938 decided that the water from the Upper Lliedi reservoir should be subjected to chlorination after sand filtration using Wallace and Tiernan's apparatus. During 1938 samples of water were submitted for monthly examination.

The whole of the men employed by the Town Council in their water undertaking have been ascertained by bacteriological tests to be free from the infection of enteric fever and allied diseases, and all new workmen are required to pass similar tests.

*Llandilo Urban.*—The work of relaying the water mains and services was commenced during the year. A sample of the Llandyfan water taken on May 10th showed that it was of good organic purity, of moderate hardness and non-plumbosolvent.

*Llandovery Borough.*—No samples of water were taken during the year. The Town Council are having new and larger pipes to be laid throughout the town.

*Kidwelly Borough.*—The Town's supply is obtained from wells in different parts of the district and from deep seated springs, tapped and delivered by cast iron mains to the town. These supplies are:—

(a) The Millands supply which was used constantly from March 31st to May 18th. The Council are considering the laying of a new 3-inch rising main from Millands to Capel Sul reservoir, which will give the following advantages—(1) the Chlorination plant to be installed at Capel Sul will serve both supplies; (2) the water from Millands will be pumped into the storage reservoir and not into the service main as at present.

(b) Capel Sul Well—This yields a minimum supply of about 20,000 gallons per 24 hours. The water is carried in mains and distributed to most of the houses in the town. The storage is 30,000 gallons.

(c) Maesgwenllian Supply.—This is from deep seated springs tapped in a disused Silver Mine at a level giving a minimum supply of about 25,000 gallons in 24 hours. There is storage for 10,000 gallons.

(d) Mynyddygarreg Supply.—With the aid of hydraulic rams this gives a minimum flow of 8,000 gallons per 24 hours. There is a storage for 3,000 gallons.

*Burry Port Urban.*—The bulk of the Town's supply is obtained from the Llanelly R.D.C. under agreement. There is a well supply at Clundu which in summer yields approximately 10,000 gallons per 24 hours, increasing to 40,000 gallons in winter. Two samples taken during 1938 proved satisfactory. This water is now chlorinated automatically by means of a Wallace and Tiernan Automatic Chlorinator. Since the 50,000 gallon storage tank at Kenrhos Hill has been in operation there has been no complaint of insufficient pressure at the highest points of the district. The watermains were extended 1250 yards to provide Lletyrychen Fawr Farm with a water supply. The cost was borne by the Pemberton Estate.

*Ammanford Urban.*—The supply of water for the district was again plentiful throughout the year, and the filters and chlorination plant have continued to work satisfactorily a constant and sufficient

supply of water is provided for the higher regions of the district by means of a hydrostat fixed on Ammanford Square. The recorded quantity of water used was 115,660,000 gallons, a reduction on the quantity for 1937 of 6,932,000 gallons. This works out at a daily consumption per head of 43 gallons. A sample of the water taken during the year proved satisfactory.

*Cwmaman Urban.*—The water supply while it is quite adequate during the wet months of the year, becomes very poor in the summer months when rationing has to be instituted. This deficiency is felt most in the higher parts of the Area when water is only obtained for a few hours every day. The Council have prepared plans to augment the water supply, but have not been able to carry them out owing to financial reasons.

*Llanelly Rural.*—The Llynfan water scheme inaugurated in 1919 has been developed to the best possible advantage. Storage capacity at Intake Works, 200,000,000 gallons. Approximate length of Trunk and Distributing—150 miles mains.

Total number of houses supplied—4974; average consumption per head per day—25.23 gallons; Total cost of capital works—£354,096 approx. The water supplied is of excellent quality.

*Carmarthen Rural.*

*St. Ishmaels Parish.*—This new scheme has proved satisfactory and during the year the mains were extended in Ferryside village for a length of about 300 yards in 3 inch spun iron mains.

*Llanarthney and Llanddarog Water Scheme.*—Work on this scheme has been in progress during the year and it is anticipated that the scheme will be completed in 1939.

*Carway Village.*—Lack of pressure has been experienced in one part of the village for some considerable time. A length of 750 yards of the 3-inch cast iron mains was scraped and the supply is now satisfactory.

*Llangendcirne, Four Roads and Meinciau.*—Plans for this scheme have been completed, but the Council have not yet taken any steps to carry out the scheme.

*Pendine Village.*—Owing to the large influx of visitors to this seaside village during the summer months, the Council installed a small petrol driven pump to pump water from the low level service tank to the high level service tank, to sustain a better pressure in certain parts of the village. This arrangement proved satisfactory. The situation of this source is not a desirable one, and the supply should be further protected.

*Llangunnor Parish.*—A scheme to supply a large portion of this parish has been brought before the Council, but was rejected on the grounds of cost. A proper supply is a very urgent need.

*Cwmfelin Mynach Village.*—Plans of a scheme to supply the above village are now complete, and it is anticipated that the scheme will be carried out in 1939.

*Llanboidy Village.*—Negotiations have been in progress during 1938 for the acquisition of additional land around the source to be enclosed as protection from surface water and pollution by cattle. Tenders are to be invited early in 1939 for the laying of new 3-inch and 2-inch asbestos cement pressure mains and the extension of the mains to Lower Llanboidy Village.

*St. Clears Village.*—There is a desperate need for a properly protected water supply for this large village. The small piped supply cannot be rendered safe and the bulk of the village depends on wells. The engineer is investigating suitable sources of supply for a new comprehensive scheme.

*Clynderwen.*—This village is partly situated in the area of the Narberth Rural District and partly in the Carmarthen Rural District. Narberth Council have a new piped supply passing through the village, and negotiations are proceeding to utilise this supply.

*Abergwili.*—Only a portion of this village has a piped supply the other portion depending on wells. Two samples taken from the piped supply during the year were very unsatisfactory. The sources of the piped supply are from two very superficial springs at the foot of a bank, and the springs can be easily polluted from the field on the bank. The supply is also not sufficient for even the



portion of the village that it supplies. Nothing has been done to remedy conditions other than that enquiries have been made of the Carmarthen Borough Council of the charge they would make to extend the Borough mains to Abergwili. Chlorination has been recommended as a temporary measure for safety, but this has not been carried out. Notices have been placed at the village taps advising consumers to boil the water. The conditions at Abergwili should be regarded as serious.

*Convil Village.*—This supply is not a piped supply and there is an obvious need for a proper scheme in this village.

*Cwmduad.*—This village has a very bad water supply, and should be provided with a sufficient and protected supply.

*Woodcock Lodge.*—This small hamlet in the parish of Newchurch has a very bad supply which could easily be put safe. A scheme has been put before the Council, but was not accepted.

*Mynyddcerrig.*—No further steps have been taken to provide this area with water.

*Laugharne Township.*—A source is being investigated for Laugharne which is greatly needed.

*Mydrim Village.*—There is a real need of a sufficient and protected supply for Mydrim, but as yet a suitable source has not been found.

The number of water samples taken during the year was 20.

The above account of some of the water supplies in the Carmarthen Rural District makes sorry reading, and the attitude of the Council in view of the unsatisfactory condition of these supplies can only be described as negative. If water-borne disease broke out in these unsatisfactory areas the Carmarthen Rural District Council would bear a heavy responsibility.

#### *Llandilo Rural District.*

(a) *Llandilo South District.*—The parish of Llandebie and a part of the Parish of Llandilo Rural are provided with a piped supply of water from the Loughor Reservoir. This supply is filtered and chlorinated. The districts of Rhosamman, Brynamman

and Tirsirwalter are also supplied with a filtered water supply. This means that out of a total population of 15,000 about 12,000 are supplied with filtered water of a high degree of purity.

The districts of Cwmllynfell, Cefnbrynbrain and Ystradowen are also provided with piped supplies of water from the Cwmllynfell Reservoir.

In the parish of Bettws the supply in the upper part is quite satisfactory, but in lower Bettws there is not a sufficient supply during dry periods. Attempts were made to explore for water on Tir Eleanor Farm, Bettws, but it was found that most of the water was land surface drainage and came through a network of land draining pipes. In view of the poor quality of the water on Tir Eleanor Farm, the presence of a mine working at this spot and the need for an abundant supply of water for the proposed sewerage scheme it was decided that Lower Bettws would best be served by connecting the mains to those of the Ammanford Urban Area.

(b) *Llandilo North District*.—The following localities are provided with piped supplies:—

Llandilo Rural Parish—Ffairfach, Trapp, Salem, Rhosmaen, Cefntiresgob, part of Manordilo and part of Capel Isaac;

Talley Parish—Village of Talley;

Llansawel Parish—Village of Llansawel.

Llanegwad Parish—Felingwm-uchaf, Cothi Bridge, Nantgaredig and Tirdomen District;

Llanfihangel-Aberbythich—Conwil, Stag and Pheasant, Castellrhingyll and Milo;

Llangathen Parish—Dryslwyn and Broad Oak. There is also a private supply to Llangathen School and cottages on the Cawdor Estate;

Llanfynydd Parish—Village of Llanfynydd.

Wells and pumps are owned and maintained by the Council at the following villages, viz.: Llangathen, Broad Oak, Court Henry, Mynyddbach, Penybank, Cothi Bridge, Gurrey Bank, Ffairfach, Penrhiw, Golden Grove and Llanegwad Village.



(c) *Llandovery Sub District*.—The following villages are provided with a piped supply of pure water:—Llangadock, Bethlehem, Myddfai, Pumpsaint, Farmers, Cilycwm and Llanwrda. The Llanelly Rural District water main passes through Llanddeusant and Gwynfe, and public taps have been erected at convenient spots in these places by arrangements with the Llanelly R.D.C. In addition private owners have been assisted to obtain supplies from this source. A gravitation supply for the village of Halfway, Myddfai is now under consideration.

## SEWAGE DISPOSAL.

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*Llanelly Borough*.—There were no extensions of sewers carried out in the Borough during 1938. The Borough is wholly sewered and very few closets remain.

*Carmarthen Borough*.—The sewers of the Borough have their outfalls directly into the river, there being no method of treatment of the sewerage. This is all against modern practice.

*Llandilo Urban*.—A new length of sewer was constructed during the year at the top of New Road. This will enable any new building which may be erected along the side of the Carmarthen Road to be connected to the new main. A large amount of work has been carried out in connection with the provision of new man-holes, for the old sewers in Carmarthen Street and George Street.

*Llandovery Borough*.—There is no system of sewerage in the Borough, and no progress was made during the year in improving the arrangements of drainage and sewerage.

*Kidwelly Borough*.—The Council have approved a scheme to utilise the existing surface water drains as sewers and to connect them to the new 12-inch main sewer which will run from the junction of Bridge Street and Station Road to an outfall near the Hillfield Septic Tank. This work will be commenced in 1939.

There are 45 houses connected to the Hillfield sewer which discharges into a septic tank near Morfa Mawr Embankment. There are 126 houses which have water closets discharging into cesspools. In the remaining houses the night soil is buried in the gardens by the occupiers. There are 118 cesspools in the Borough.

*Burry Port Urban.*—The Town Sewerage Scheme is on a partially separate system with outfall to sea through Woodbrook Terrace on the south side of the G.W.R. main line, and through a septic tank situated at the old harbour. During the year the following extensions were carried out:—

- (a) 6-inch sewer to drain all the houses on the South side of Carway Street;
- (b) 6-inch sewer at Gorse Terrace;
- (c) 6-inch valley sewer to drain the houses on the North side of Colby Road to the East side of Cwm Capel railway.

The completion of a sewerage scheme for the Graig district will be commenced during 1939.

Last year 40 houses were connected to the sewer. The number of houses from which night soil is collected has decreased from 79 to 55 houses, the night soil being collected once weekly in hoppers and discharged into the main sewer. Containers are thoroughly disinfected after use. There are three cesspools in the Urban area which are periodically cleansed by the Council's employees.

*Ammanford Urban.*—The area is wholly sewered except for 12 houses which remain to be connected to the Public Sewers. It is hoped that before the end of 1939 all these remaining houses will have been connected. Throughout the summer months the automatic flushing tanks are brought into operation twice weekly. The sewerage system is by gravitation to the filter beds and is under the control of the Amman Valley Joint Sewerage Board.

*Newcastle Emlyn Urban.*—The Medical Officer of Health states:—"This is antique. . . . Minor improvements have been made. There are far too many houses without a water carriage system."

*Cwmaman Urban.*—The whole area is satisfactorily sewered. The sewers discharge at eleven points to the Trunk Sewer laid down by the Amman Valley Joint Board. The effluent is taken down to the Board's Sewerage Disposal Works at Pantyffynon. The conversion from Privies to Water Closets is very gradual, the slowness of progress being due to the continued trade depression in the area. The total number of closets connected up to date is 860; the estimated number still to be connected up is 361. The water supply in some parts of the area is so poor that it is impossible to expect owners to connect up to the main sewers.

*Llanelly Rural.*—The following Sewerage Schemes have been carried out within the district since 1920:—

Scheme.				Capital cost.
Llanelly and Pembrey	...	...	...	£112,532
Tumble	...	...	...	£16,938
Llangennech	...	...	...	£24,168
Llwynhendy	...	...	...	£31,489

The number of sewer connections up to December 31st, 1933 was 3400.

The following sewerage schemes have been approved of and will be commenced during 1939:—

Scheme.				Capital cost.
Trimsaran	...	...	...	£11,597
Pontyberem	...	...	...	£4,243

The Council has an ambitious programme for sewerage the whole of their district, but many of the schemes already submitted to the Ministry have been deferred for financial reasons.

*Carmarthen Rural.*—Practically no work respecting sewerage disposal was carried out during the year. It must be appreciated that nowhere in the area is there a complete sewerage scheme with a sewage disposal plant. Populated areas such as Gorslas, Drefach and Pontyates have no proper sewerage schemes. Whitland, St. Clears, Llanstephan, Ferryside, Llansaint and Conwil are all villages which depend in the main on the pail closet system and which should have proper sewerage schemes. St. Clears and Conwil need as a necessary preliminary an efficient water supply. Efficient schemes and sewage disposal plants should be the aim of the Council for every village in the area where there is a water supply functioning a sewage scheme should naturally follow. It is a noticeable feature that schemes prepared have been unacceptable because of the cost falling on the parish. The number of pail closets in the area is 5552, and the number of water closets 949.

#### *Llandilo Rural.*

(a) *Llandilo South District*—This district is mainly industrial. The Council is one of the constituent authorities of the Amman Valley Joint Sewerage Board, and after the Joint Board's Trunk Sewer and Disposal Works were constructed, the Brynamman District comprising some 600 houses, was sewered and joined to

the Board's Trunk Sewer. Only a few houses have not been connected. The Parish of Llandebie carried out sewerage works in 1929-30 for some 850 houses in the Llandebie, Bontllwyn, Penybanc and Saron Districts, and these are also connected to the Joint Board's Trunk Sewer. It can be said that the districts referred to have excellent water and perfect sanitary services.

The majority of the houses in Penygroes are already provided with water closets and drains, but the effluent flows on to land and into brooks. Plans in outline of sewerage schemes estimated to cost £30,000 for Penygroes, Capel Hendre, Blaenau and Caerbryn districts to drain into the Amman Valley Joint Board Sewers have been submitted to the Ministry of Health. If this scheme materialised an additional rate of 2/6 in the pound would have to be borne by the ratepayers of Llandebie if financial assistance by way of grants was not forthcoming. It will be necessary for the Council to join with the Llanelly R.D.C. for the purpose of constructing a joint sewer for the Tycroes district, but so far no progress has been made in this direction.

*Bettws Parish.*—The terms proposed by the Ammanford U.D.C. for connecting up the sewers in Bettws parish to those of the urban area have again been revised and now leave nothing to be desired. The sewerage of Lower Bettws should not now be unduly delayed, but the supply of water from the Ammanford Urban mains for this area has still to be bargained for.

*Cwmlllynfell.*—The discharge of crude sewerage into the rivers Twrch and Llynfell still continues, and it is clear that the Parish will not be able to join up their sewers to those of the Pontardawe and Ystradgynlais R.D.C. unless a grant is provided.

(b) *Llandilo North District.*—This sub-district being a purely rural area there is no system of sewers except for the district of Carmel where a scheme has recently been carried out, in which the sewage is treated. In Llansawel a sewer has been provided to deal with domestic water and rain water only.

*Rhosmaen and Ffairfach.*—The Council has under consideration plans for the sewerage of these districts. As no grants are available the matter however had to be postponed.

(c) *Llandovery Sub-District*.—This district being purely a rural one, there is no system of public sewerage. The question of providing a sewerage scheme for the village of Llangadock has been discussed, but the expense involved would be very great. For the large type of house in this sub-district cesspools are constructed by the owner, otherwise the earth and pail closet are in vogue.

# Housing.

Number of Houses erected during the year 1938.

Districts.	Number erected by the Local Authority.	Number erected by private enterprise.		Total.	
		With State assistance under the Housing Acts "Subsidy"	Without State assistance.		
URBAN.					
Llanelly ... ..	296	...	36	332	
Carmarthen ... ..	50	...	52	102	
Llandilo ... ..	...	...	6	6	
Llandovery ... ..	...	...	4	4	
Kidwelly ... ..	8	...	5	13	
Newcastle Emlyn ... ..	...	...	2	2	
Ammanford ... ..	...	...	12	12	
Burry Port ... ..	20	...	28	48	
Cwmamman ... ..	...	...	...	...	
	374	...	145	519	
RURAL.					
Llanelly ... ..	112	...	65	177	
Carmarthen ... ..	...	...	43	43	
Llandilo-Fawr ... ..	10	...	29	39	
Newcastle Emlyn ... ..	...	...	18	18	
	122	...	155	277	
Urban Districts ... ..	374	...	145	519	
Rural Districts ... ..	122	...	155	277	
Whole County ... ..	496	...	300	796	

The following Tables summarise the amount of work undertaken in connection with Housing during 1938.



## INSPECTION OF HOUSES OF WORKING CLASSES.

## UNFIT HOUSES.

District.	No. of Inhabited Houses according to Rate Books	Inspection of Dwelling Houses.			Action taken in respect of Individual Unfit Houses.	No. of Tene-ments or under-ground Rooms in re-made.			No. in which Closing Orders were deter-mined.						
		Total No. of Houses inspected for Housing Defects under P.H. & Housing Acts.	No. of Inspec-tions made for the Purpose	No. of Houses found Unfit for Human Habi-tation		No. in addition found not in all respects fit for Habi-tation.	No. of Defec-tive Houses made fit as result of In-formal action by L.A. or its Officers	No. of Formal Notices requiring Repair or Remedy of Defects		No. of Houses made fit after service of Formal Notices	No. of Demoli-tion Orders made in respect of Dwel-ling Houses.	No. of Houses Demo-lished in Pur-sue of Demo-lition Orders.			
URBAN.	Llanelly	9049	825	1582	151	190	156	Nil	25	2	23	23	32	1	Nil
	Carmarthen	3050	1084	1157	84	118	54	3	88	Nil	84	4	Nil	Nil	Nil
	Llandilo	556	69	69	31	9	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	Llandovery	635	7	10	49	Nil	Nil	7	40	Nil	10	Nil	Nil	Nil	Nil
	Ammanford	1973	194	252	1	32	3	29	Nil	24	40	2	Nil	Nil	Nil
	Cwmaman	1225	32	32	Nil	6	6	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	Kidwelly	789	644	644	8	9	6	10	7	6	7	2	2	Nil	Nil
	Furry Port	1404	832	832	76	18	5	18	15	14	15	20	9	Nil	Nil
	N. C. Emlyn...	261	60	90	Nil	12	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	RURAL.	Llanelly	8353	393	1166	229	152	167	9	7	8	26	60	32	13
Carmarthen	7638	769	888	61	66	45	9	4	4	3	3	19	3	Nil	Nil
Llandilo	7300	818	818	304	110	17	2	37	Nil	27	1	1	1	Nil	Nil
*N. C. Emlyn	...	...	...	...	...	...	...	...	...	...	Nil	...	...	...	...

\* No statistics received.

Figures in Brackets indicate partial completion of necessary works.



## OVERCROWDING—PART IV. HOUSING ACT, 1936.

District	No. of Dwellings over-crowded at end of year	No. of Families dwelling therein.	No. of Persons dwelling therein.	No. of New Cases of Over-crowding during year.	No. of Cases of Over-crowding relieved during year.	No. of Persons concerned in such cases.	Houses again over-crowded after L.A. have taken steps to abate Over-crowding
<b>URBAN.</b>							
Llanelly ...	396	396	2002	164	205	1122	Nil
Carmarthen ...	86	87	488	12	31	Nil	Nil
Llandilo ...	16	16	78	Nil	Nil	Nil	Nil
Llandovery ...	5	5	19	Nil	Nil	Nil	Nil
Ammanford ...	16	26	104	Nil	8	29	Nil
Cwmamman ...	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Kidwelly ...	11	13	41½	Nil	8	27½	Nil
Burry Port ...	40	46	202	Nil	Nil	Nil	Nil
N. C. Emlyn...	Nil	Nil	Nil	Nil	Nil	Nil	Nil
<b>RURAL.</b>							
Llanelly ...	237	241	1636	40	43	270	Nil
Carmarthen ...	91	91	551	Nil	Nil	Nil	Nil
Llandilo ...	42	42	262	2	1	5	Nil
*N.C. Emlyn	...	...	...	...	...	...	...
Total Urban ...	570	589	2934½	176	252	1178½	Nil
Total Rural ...	370	374	2449	42	44	275	Nil
Whole County	940	963	5383½	218	296	1453½	Nil

\*No Statistics received.

**HOUSING (RURAL WORKERS) ACTS, 1926-1938.****(For the Improvement of Existing Dwellings).**

191 applications have been received since the Act came into force.

99 of these have been refused by the County Council.

17 have been withdrawn by the applicants.

75 applications have been granted of which

64 houses have been completed.

Grants amounting to £4869 6s. 8d. have been paid in respect of these houses.

## MONTHLY AVERAGE RAINFALL.

Month.	1936	1937	1938	†Llynnyfan, 1936	†Llynnyfan, 1937.	†Llynnyfan, 1938
January ...	6.36	6.04	6.38	11.21	17.10	14.91
February ..	3.06	7.99	2.09	4.81	14.24	4.57
March ...	3.02	2.92	1.64	5.66	8.46	1.76
April ... ..	3.60	2.83	.10	4.53	4.95	0.55
May ... ..	1.40	1.95	3.49	2.05	3.34	8.23
June ... ..	3.64	1.82	4.29	5.69	3.73	8.55
July ... ..	7.71	3.18	5.07	13.13	3.95	8.40
August ...	2.39	1.54	4.09	2.64	1.66	5.35
September...	4.71	3.85	1.93	5.29	4.42	4.06
October ...	2.59	4.51	8.16	4.96	5.05	14.97
November ..	5.92	1.85	8.62	7.94	2.71	16.07
December ..	4.82	4.11	4.36	17.22	9.39	9.33
	49.22	42.59	50.32	85.13	79.00	96.75

†Llynnyfan is the source of supply for the Llanelly Rural District. It is 1,634 feet above sea level, and is naturally very much higher than in the other parts of the County. It has not been included in arriving at the average rainfall for the whole County. It is, therefore, given apart.

## “ VITAL STATISTICS.”

<b>Vital Statistics</b>	...	...	...	...	...	<b>1</b>
<b>Causes of Death</b>	...	...	...	...	...	<b>2</b>
<b>Summary of Vaccination Returns</b>	...	...	...	...	...	<b>3</b>
<b>Notification of Infectious Diseases</b>	...	...	...	...	...	<b>4</b>

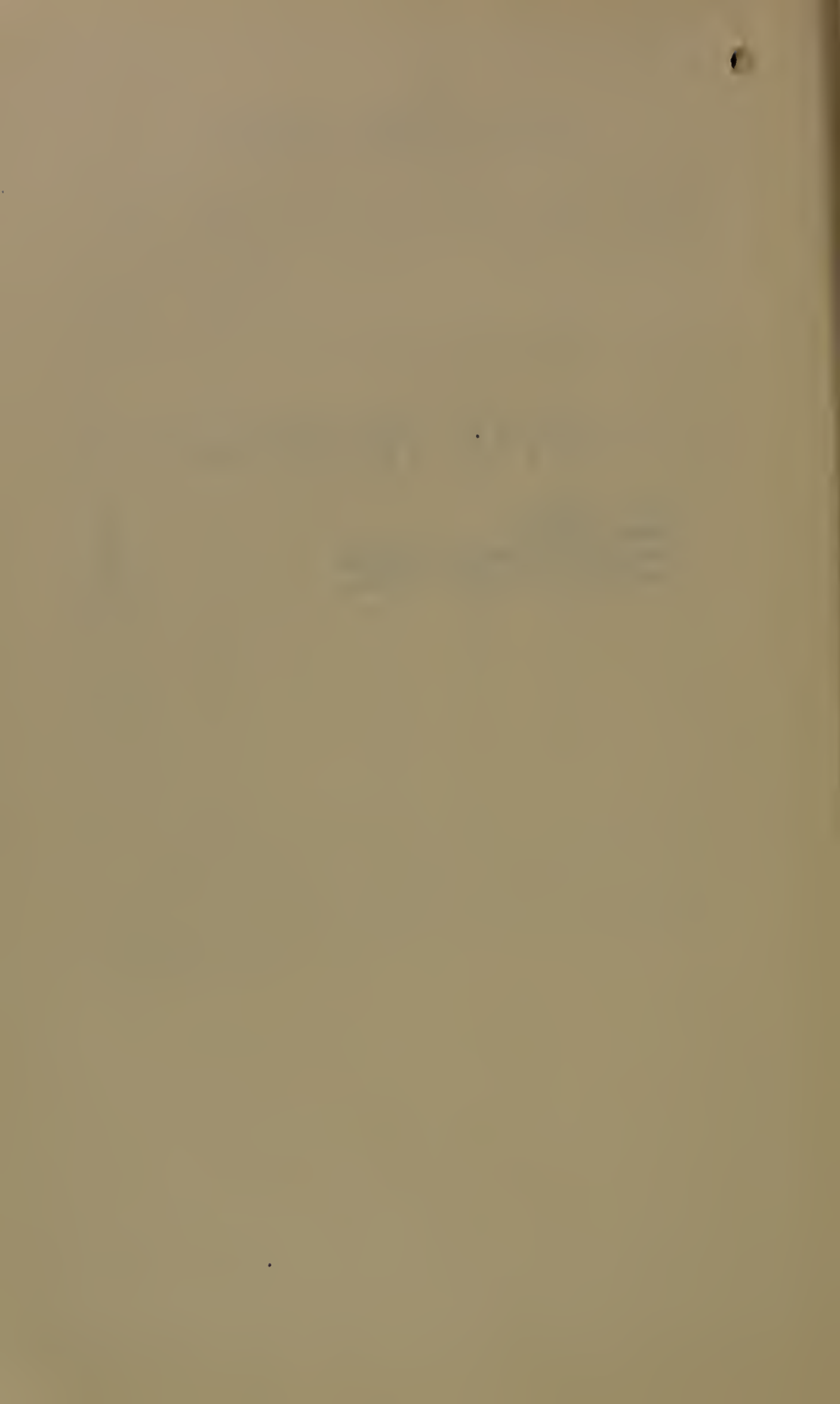








TABLE I.

## VITAL STATISTICS.

Name of District	Estima- ted Popula- tion for 1938	Nett Births		Deaths Regis- tered in District.		Transferable Deaths.		Deaths under 1 year.		Area of District in Acres.	Census. 1931.
		No.	Rate per 1000 Popula- tion.	No.	Rate per 1000 Popula- tion.	Outward.	Inward.	No.	Rate per 1000 Nett Births.		Total Popula- tion at all ages.
						Non-Residents registered in District.	Residents registered in District.				
URBAN											
Llanelly ...	36890	494	13.3	427	11.6	46	33	28	56.6	2069	38416
Carmarthen ...	10860	141	12.9	121	11.1	121	3	5	35.4	5160	10310
Llandilo ...	1902	28	14.7	29	15.2	2	8	2	71.4	304	1886
Llandovery ...	2006	25	12.4	25	12.4	1	5	...	...	1266	1980
Kidwelly ...	2952	34	11.5	33	11.2	...	7	2	58.8	2354	3159
Newcastle Emlyn	792	8	10.1	15	18.9	3	1	1	12.5	208	763
Ammanford ...	6906	88	12.7	74	10.7	1	13	8	90.9	944	7164
Burry Port ...	5425	79	14.4	67	12.3	1	13	1	12.6	1374	5755
Cwmamman ...	4867	52	10.7	67	13.7	2	20	6	115.4	756	5217
Total ...	72600	949	13.07	858	11.8	177	103	53	55.8	4935	74650
RURAL											
Llanelly ...	36190	482	13.2	396	10.9	22	66	22	45.6	51367	37266
Carmarthen ...	27800	435	15.6	369	13.2	5	69	25	57.4	202622	29269
Llandilo ...	27550	394	14.3	304	11.03	10	48	14	35.5	236706	28875
Newcastle Emlyn	8560	106	12.3	134	15.6	3	13	9	84.9	82842	9016
Total ...	100100	1417	14.1	1203	12.01	40	196	70	49.4	573537	104450
Urban Districts...	72600	949	13.07	858	11.8	177	103	53	55.8	14935	74650
Rural Districts...	100100	1417	14.1	1203	12.01	40	196	70	49.4	573537	104450
Whole County ...	172700	2366	13.7	2061	11.9	217	299	123	51.9	588472	179100
England & Wales			15.1		11.6				53.0		



TABLE II. CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE IN THE ADMINISTRATIVE COUNTY OF CARMARTHEN, 1938.

CAUSES OF DEATH.								Sex.	AGGREGATE OF URBAN DISTRICTS.																All	AGGREGATE OF RURAL DISTRICTS.															
									All	0—	1—	2—	5—	15	25—	35—	45—	55—	65—	75—	Ages.	0—	1—	2—	5—	15	25—	35—	45—	55—	65—	75—									
								M.	452	31	3	4	10	10	10	36	44	96	116	92	627	42	5	9	11	19	26	31	68	104	164	148									
All Causes								F.	406	22	5	...	8	16	19	23	30	61	99	123	576	28	2	4	11	20	21	27	53	100	137	173									
1. Typhoid and paratyphoid fevers								M.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...									
								F.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...									
2. Measles								M.	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...									
								F.	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...								
3. Scarlet Fever								M.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...								
								F.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...								
4. Whooping cough								M.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...								
								F.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...								
5. Diphtheria								M.	4	...	...	2	2	...	...	...	...	...	...	...	...	5	1	...	1	3	...	...	...	...	...	...	...	...							
								F.	1	...	...	...	1	...	...	...	...	...	...	...	...	2	...	...	...	2	...	...	...	...	...	...	...	...							
6. Influenza								M.	6	...	1	...	...	1	...	2	1	2	1	1	...	12	1	...	2	...	...	...	...	3	2	4	...								
								F.	9	...	...	...	1	1	...	2	1	2	2	...	12	...	...	...	...	...	...	2	1	2	7	...	...								
7. Encephalitis lethargica								M.	2	...	...	1	1	...	...	...	...	...	...	...	2	...	...	...	...	...	...	1	1	...	...	...	...								
								F.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
8. Cerebro-spinal fever								M.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
								F.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
9. Tuberculosis of respiratory system								M.	23	...	...	...	...	3	4	4	5	6	1	...	29	...	...	...	...	5	5	6	5	7	1	...	...								
								F.	18	...	...	...	1	8	5	3	...	1	...	31	...	...	...	...	8	7	4	6	4	1	1	...									
10. Other tuberculous diseases								M.	3	...	...	...	1	1	...	1	...	...	1	...	9	...	2	...	...	2	...	2	1	...	2	...									
								F.	6	...	1	...	2	1	1	...	...	1	...	3	...	...	...	...	...	1	2	...	...	...	...	...									
11. Syphilis								M.	1	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...									
								F.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...									
12. General paralysis of the insane, tabes dorsalis								M.	1	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...								
								F.	...	...	...	...	...	...	...	2	5	16	13	5	70	...	...	1	...	1	2	3	12	15	28	8									
13. Cancer, malignant disease								M.	41	...	...	...	...	...	2	4	9	18	15	8	72	...	...	...	...	...	1	8	14	21	18	10	...								
								F.	56	...	...	...	...	...	1	...	...	3	1	...	2	...	...	...	...	...	1	...	...	1	...	...									
14. Diabetes								M.	5	...	...	...	...	...	...	2	...	1	5	2	8	...	...	...	...	...	...	...	2	4	2	...									
								F.	10	...	...	...	...	...	...	...	...	1	5	2	35	...	...	...	...	...	...	...	...	2	10	19									
15. Cerebral haemorrhage, etc.								M.	20	...	...	...	...	...	...	1	3	7	9	41	...	...	...	...	1	1	...	2	8	16	13	...									
								F.	26	...	...	...	...	...	...	2	10	3	11	160	...	...	...	2	...	3	5	11	33	54	52	...									
16. Heart disease								M.	105	...	...	...	...	...	3	9	26	40	27	153	...	...	...	4	3	2	3	9	34	35	63	...									
								F.	104	...	...	...	...	1	2	4	6	12	29	50	1	...	...	...	...	...	...	...	...	...	1	...									
17. Aneurysm								M.	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...									
								F.	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9	15	18									
18. Other circulatory diseases								M.	28	...	...	...	...	...	...	3	5	12	8	42	...	...	...	...	...	...	...	...	1	4	17	29	...								
								F.	24	...	...	...	...	...	...	1	...	8	15	51	...	...	...	...	...	...	...	2	2	3	7	...									
19. Bronchitis								M.	13	...	...	...	...	...	...	1	5	5	2	15	1	...	...	...	...	...	...	...	...	2	7	10	...								
								F.	13	1	...	...	...	...	...	1	...	8	3	21	1	...	...	...	...	1	...	...	1	5	2	6	...								
20. Pneumonia (all forms)								M.	24	3	1	...	1	1	4	2	3	4	5	29	5	2	...	...	2	1	1	5	2	1	7	3	...								
								F.	17	2	3	...	...	1	1	1	3	2	4	18	3	...	...	...	1	...	2	1	1	1	7	3	...								
21. Other respiratory diseases								M.	12	...	...	...	...	...	...	1	4	6	1	...	24	...	...	...	...	1	4	7	9	1	2	...									
								F.	4	1	...	...	...	...	...	2	...	...	1	4	...	1	...	...	...	1	...	...	...	...	1	1	...								
22. Peptic ulcer								M.	9	...	...	...	...	...	...	3	2	2	1	1	3	...	...	...	...	...	...	...	...	...	1	...	...								
								F.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...								
23. Diarrhoea, etc.								M.	1	1	...	...	...	...	...	...	...	...	...	2	1	1	...	...	...	...	...	...	...	...	...	...	...								
								F.	3	3	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	1	...	1	1	...	...	...									
24. Appendicitis								M.	2	...	...	...	...	1	...	...	1	...	...	7	...	...	2	1	...	...	...	1	1	1	...	1	...								
								F.	1	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...									
25. Cirrhosis of liver								M.	2	...	...	...	...	...	...	...	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...								
								F.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...								
26. Other diseases of liver, etc.								M.	1	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	1	1	...	1	...								
								F.	2	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...									
27. Other digestive diseases								M.	9	1	...	...	...	...	1	2	1	...	4	...	5	2	...	...	...	...	...	...	1	1	3	1	...								
								F.	6	1	...	...	...	...	...	1	1	1	1	1	8	2	...	...	...	...	...	1	2	5	11	3	...								
28. Acute and chronic nephritis								M.	22	1	...	...	1	...	...	4	1	6	5	4	22	...	...	...	...	...	...	1	6	6	7	7	...								
								F.	17	...	...	...	...	1	...	...	...	5	10	1	28	...	...	...	1	...	...	1	...	...	...	...	...								
29. Puerperal sepsis								F.	...	...	...	...	...	...	2	3	...	...	...	...	4	...	...	...	1	3	...	...	...	...	...	...	...								
30. Other puerperal causes								F.	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
31. Congenital debility, premature birth, malformations, etc.								M.	25	24	1	...	...	...	...	...	...	...	...	...	21	21	...	...	...	...	...	...	...	...	...	...	...	...							
								F.	13	13	...	...	...	...	...	...	...	...	...	17	16	...	...	...	1	...	...	...	...	...	...	...	14								
32. Senility								M.	10	...	...	...	...	...	...	...	...	...	2	18	14	...	...	...	...	...	...	...	...	...	2	19	...								
								F.	23	...	...	...	...	...	...	...	...	1	22	21	...	...	...	...	...	1	1	3	...	2	1	...									
33. Suicide								M.	2	...	...	...	...	1	...	...	...	1	1	...	2	...	...	...	...	...	...	1	1	...	...	...	...								
								F.	3	...	...	...	...	1	...	...	...	1	1	...	39	...	1	3	2	7	6	5	9	...	3	3	...								
34. Other violence								M.	23	1	...	...	1	3	2	8	3	1	2	2	8	...	...	1	1	1	1	1	1	1	1	1	...	...							
								F.	9	...	1	...	1	...	1	1	1	1	1	3	8	...	...	2	4	2	4	2	4	12	16	9	...								
35. Other defined diseases								M.	48	...	...	1	4	...	...	3	6	10	14	10	62	7	...	...	1	2	4	4	4	5	11	16	4	...							
								F.	33	1	1	...	1	3	2	5	2	6	11	1	55	4	...	...	...	...	1	...	1	...	...	...	1	...							
36. Causes ill-defined, or unknown								M.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
								F.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...							
37. Diarrhoea, 2 years and over								M.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
								F.	2	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...								



**TABLE III.** SUMMARY OF VACCINATION OFFICERS' RETURNS RENDERED TO THE REGISTRAR GENERAL RESPECTING THE VACCINATION OF CHILDREN WHOSE BIRTHS WERE REGISTERED FROM 1st JANUARY to 31st DECEMBER, 1937.

Vaccination Districts.	No. of Births entered in Birth Lists as registered during 1937.	Number of these Births duly entered by 31st January, 1939 in the Vaccination Register.					No. of these Births which remained Un-entered in the Vaccination Register on account of			Number of these Births remaining on the 31st January, 1939, neither duly entered in the Vaccination Reg. nor temporarily accounted for in the Report Book	Total No. of Certificates of successful Primary Vaccination of Children under 14 received during the Calendar Year 1938.	No. of Statutory Declarations of Conscientious Objection actually received by the Vaccination Officer irrespective of the dates of birth of the children to which they relate, during 1938.
		Successfully Vaccinated.	Insusceptible of Vaccination.	Had Small Pox.	No. of Statutory Declarations received.	Died Un-vaccinated.	Postponement by Medical Certificate.	Removal to Districts the Vaccination Officers of which have been apprised.	Removal to places unknown or which cannot be reached.			
Llanelly Urban ... ..	563	263	...	...	178	21	84	4	13	...	257	147
Llanelly Rural ... ..	223	97	...	...	41	5	80	...	10	...	116	56
Llannon ... ..	164	86	...	...	22	10	36	...	...	...	82	35
Pemhrey ... ..	181	42	...	...	60	5	74	...	...	...	32	55
Conwil ... ..	71	60	...	...	4	4	1	...	2	...	70	5
St. Clears ... ..	75	61	1	...	6	5	1	1	...	...	80	5
Llangendeirne ... ..	166	109	...	...	29	2	...	...	1	25	147	29
Carmarthen ... ..	247	152	...	...	38	16	...	1	2	38	140	35
Llandeilo ... ..	342	106	1	...	146	16	1	...	...	72	136	131
Llandilo ... ..	114	94	1	...	14	2	2	1	...	...	99	6
Llandovery ... ..	95	74	1	...	13	4	1	1	1	...	59	18
Llanhoidy ... ..	72	25	2	...	28	3	3	...	...	11	37	19
Llanybyther ... ..	44	19	...	...	5	3	2	...	2	13	30	8
Cenarth Llanfihangel-ar-Arth, Llangeler, Penhoyr, etc....	79	39	...	...	10	5	...	...	...	25	40	18
	2436	1227	6	...	594	101	285	8	31	184	1325	567





TABLE IV.

CASES OF INFECTIOUS DISEASES "NOTIFIED"  
DURING THE YEAR ON THE WEEKLY RETURNS.

Name of District.	Small Pox.	Scarlet Fever.	Diphtheria.	Enterica and Paratyphoid.	Puerperal Pyrexia.	Erysipelas.	Measles*	Ophthalmia.	Pneumonia (All Forms.)	Dysentery.	Cerebro Spinal Fever.	Chicken Pox.	Acute Polio-myelitis.	Polio Encephalitis.	Encephalitis Lethargica.	Food Poisoning.
<i>Urban Districts.</i>	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Llanelly ...	...	19	71	3	2	11	...	5	35	1	...	...	5	...	1	2
Carmarthen ...	...	13	12	...	5	1	...	1	1	2	...	...	3	...	...	...
Llandilo ...	...	8	9	...	...	...	...	...	5	...	...	...	...	...	...	...
Llandovery ...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...
Kidwelly ...	...	2	1	...	...	3	...	...	7	...	...	...	1	...	...	...
Newcastle Emlyn ...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ammanford ...	...	27	3	...	1	2	...	1	4	...	...	...	...	...	...	...
Burry Port ...	...	...	2	...	...	...	...	1	1	...	...	...	2	...	...	...
Cwmamman ...	...	13	35	...	1	...	...	...	3	...	...	...	...	...	...	...
Total ...	...	85	133	3	9	17	...	8	57	3	...	...	11	...	1	2
<i>Rural Districts.</i>	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Llanelly ...	...	41	44	1	8	8	...	4	22	...	...	...	13	...	...	...
Carmarthen ...	...	26	19	...	3	7	...	...	4	...	...	...	7	1	...	...
Llandilo ...	...	66	16	1	5	6	...	1	30	...	...	...	9	...	...	...
Newcastle Emlyn ...	...	11	...	...	1	2	3	...	3	...	...	1	...	...	...	...
Total ...	...	144	79	2	17	23	3	5	59	...	...	1	29	1	...	...
Urban Area ...	...	85	133	3	9	17	...	8	57	3	...	...	11	...	1	2
Rural Area ...	...	144	79	2	17	23	3	5	59	...	...	1	29	1	...	...
Whole County ...	...	229	212	5	26	40	3	13	116	3	...	1	40	1	1	2

\*Not compulsorily Notifiable.





